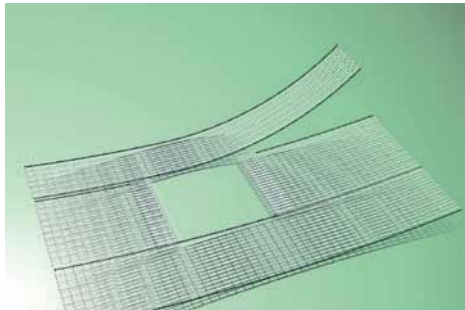
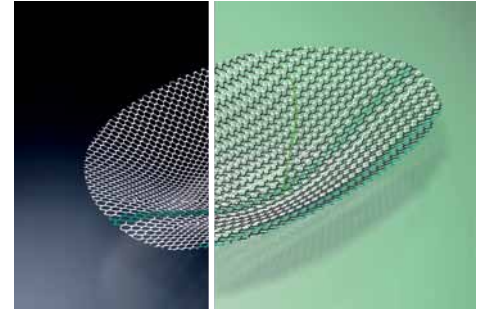
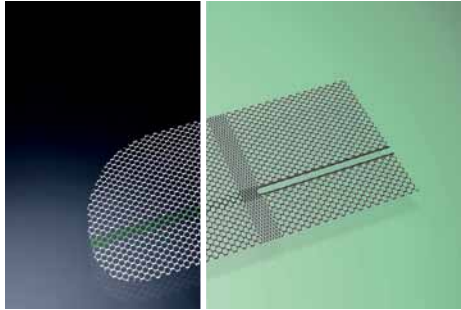
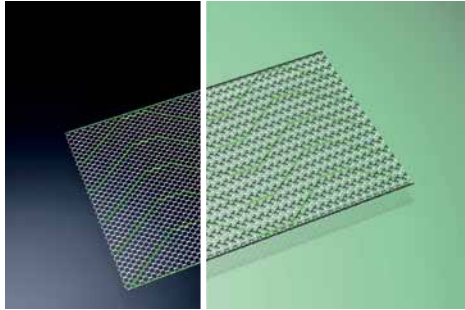
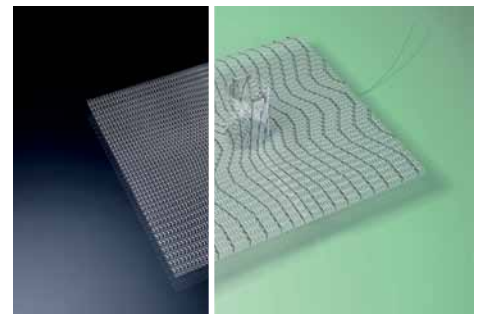
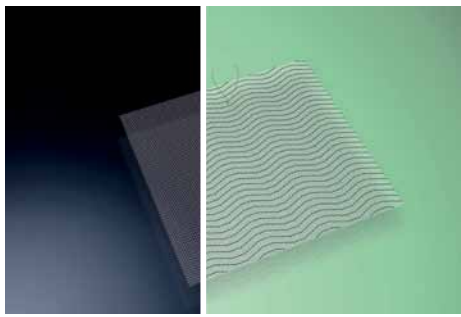
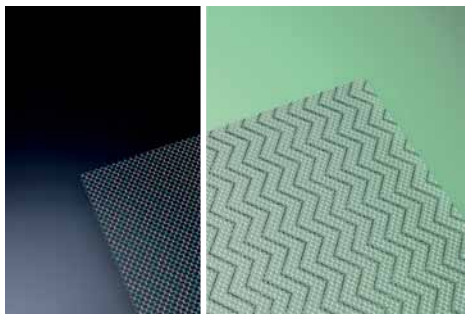
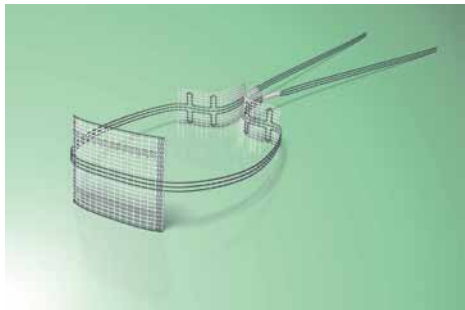




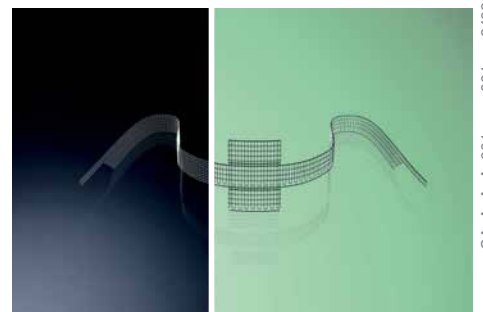
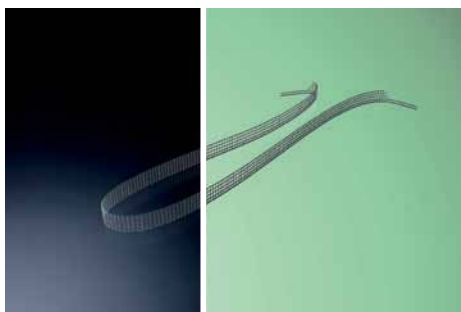
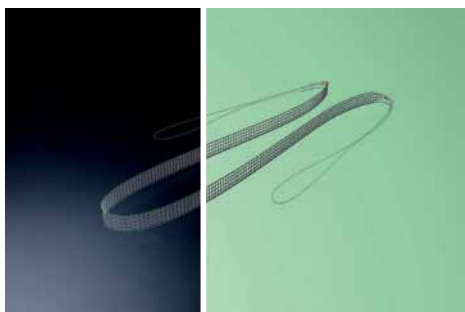
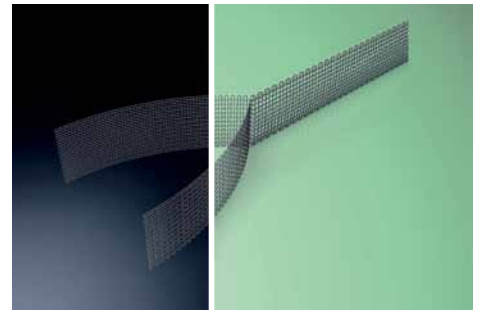
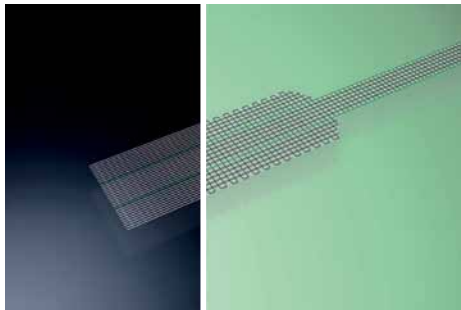
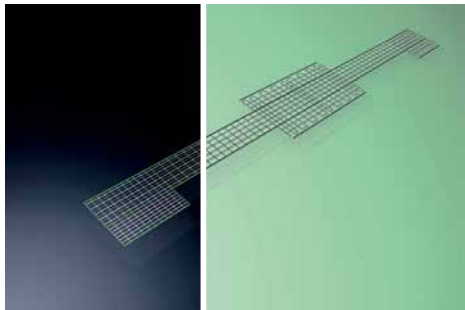
DynaMesh[®]

A Specific Solution for Every Indication



made
in
Germany

Tailored Implants
Made of **PVDF**



Profile and Competences



Some of our devices may not be available in your country. Please contact your local distributor for more information.

FEG Textiltechnik Forschungs- und Entwicklungsgesellschaft mbH (FEG) was established in Aachen in 1992 and since then has gained a reputation for exceptional innovations in the field of textile technology.

The company's dedicated and highly qualified staff, in-house research and development capacities as well as intelligent production facilities combine to make FEG today's leading manufacturer of textile surgical implants in Germany. Under the brand name **DynaMesh®**, an internationally protected trademark, FEG's award-winning implants are successfully marketed in numerous countries around the world.

FEG strives to maintain the state of the art in patient comfort and surgical handling with high-quality devices through constant and close contact with major scientific, medical, and technical institutions. The sophisticated quality management system at FEG is fully certified to EN ISO 13485 for the manufacture of medical devices. All of FEG's products are CE approved (CE 0123) and are approved under relevant national regulations.

Focusing on its core competences and expertise in textile implants, FEG will continue to set technical benchmarks in the future.

DynaMesh®

www.dyna-mesh.com

hergestellt durch / manufactured by /
fabriqué par / fabricado por / fabbricato da
FEG Textiltechnik
Forschungs- und Entwicklungsgesellschaft mbH
Prager Ring 70
52070 Aachen, Germany



Distributed by: **DAHLHAUSEN CZ**

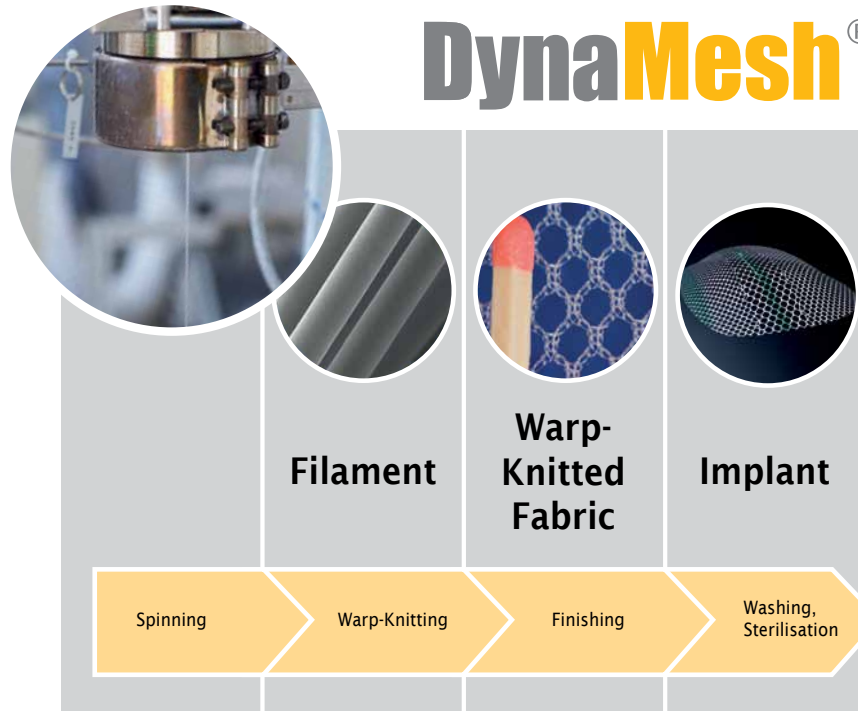
DAHLHAUSEN CZ, spol. s r.o.
Knínická 1577/8
664 34 Kuřim
+420 541 422 070
info@dahl.cz
www.dahlhausen.cz

CA_CF_A_A_001_en 001a_240319_d

CA_CF_A_A_002_en 001a_240319_d

Implants 'Made in Germany'

DynaMesh®



From Thread to Implant:
Full quality control
along the entire
production chain.

Development and
manufacturing in
Aachen, Germany



CA_CF_A_A_003_en 001a_240319_d

Milestones

1992 Founding of:



2003 Certification of:



2011 Development of
MRI visible technology



2014 New 4,200 m²
offices & production plant



2020 Additional 600 m²
production/storage capacity



Establishment of:



2024 Successful certification according to
MDR Regulation (EU) 2017/745



1994 Active in medical technology

2004 First implant
for the surgical treatment of hernias

2005 First implant
for the surgical treatment of female urinary incontinence

2006 First implant
for the surgical treatment of female pelvic organ prolapse

2007 First implant
for the surgical treatment of parastomal hernias

2008 First implant
for the surgical treatment of male urinary incontinence

2016 First implant
for the surgical treatment of hiatal hernias

Business Fields:

- Implants for the surgical treatment of:
 - Hernias
 - Female Pelvic Organ Prolapse
 - Female Urinary Incontinence
 - Male Urinary Incontinence
- Sales in over 50 countries
- More than 100 employees

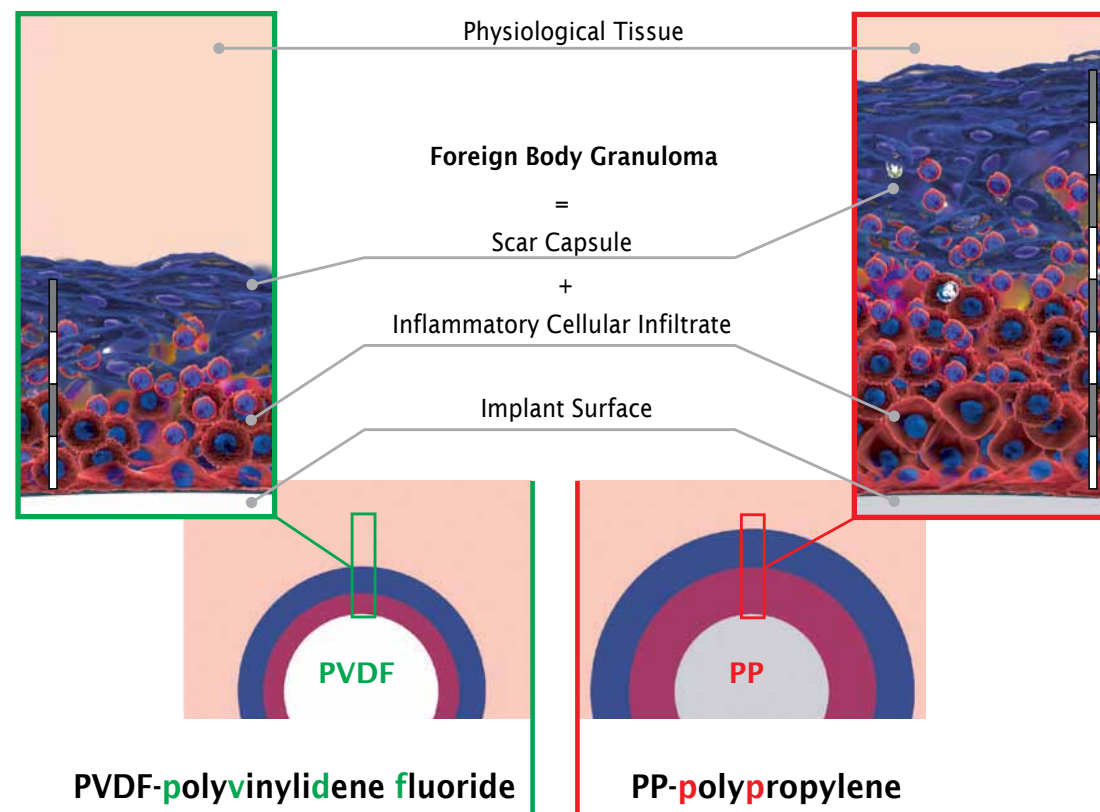
CA_CF_A_A_004_en 001a_240730_d

Biocompatibility

All DynaMesh® implants are primarily made of PVDF. PVDF has good biocompatibility, reducing the foreign body reaction compared to other materials such as polypropylene. [1^A, 2^A, 4^A, 68^A, 100^A, TR1]

Schematic Cross-Sectional View

A comparison of different granuloma thicknesses



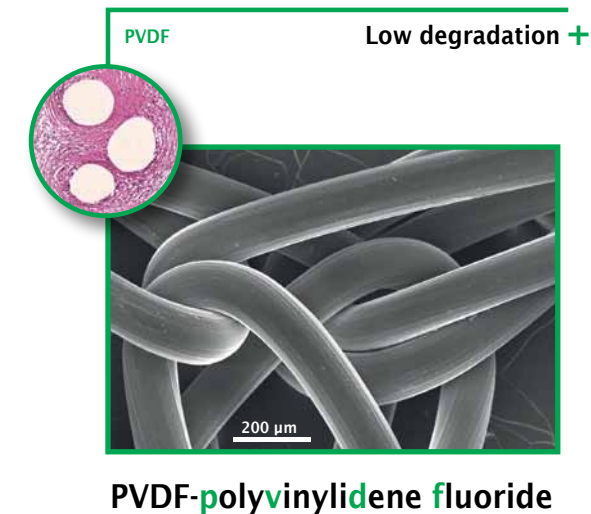
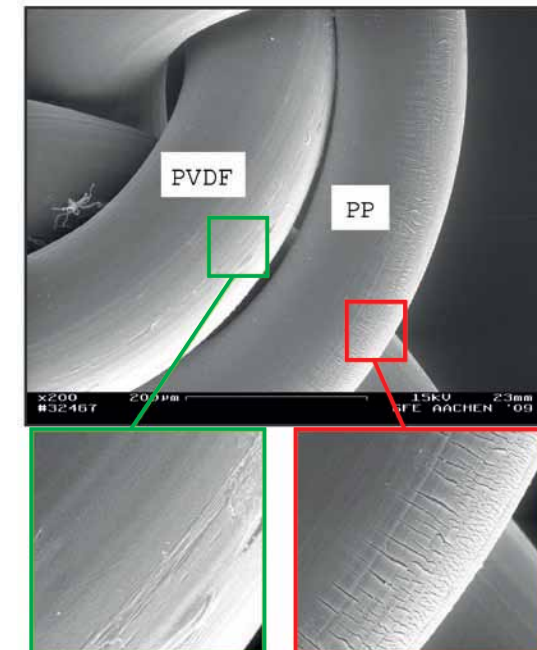
[#] Reference "#" (see "References")
[TR#] Internal test report (see "internal test report references")
Limitations "A" animal trial, "B" bench test, "VIT" in-vitro trial,
"P" published results based on the analysis of human mesh explants,
"PB" published results mainly based on bench tests

CA_CF_A_A_005_en 001a_240319_d

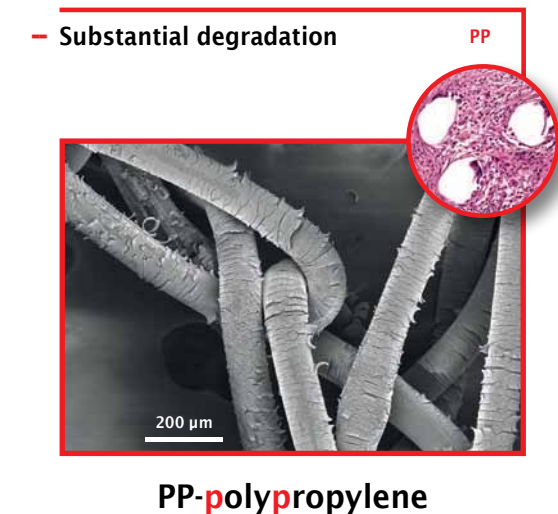
Ageing Resistance

PVDF has been used as a surgical suture material for many decades with great success, even in demanding areas of application such as ophthalmology and cardiology. [5, 91]

PVDF is known for its excellent long-term stability/ageing resistance compared to other materials such as polypropylene. [2^A, 5^{VIT}, 27^A, 52^{VIT}, 93^A, 101^P]



[#] Reference "#" (see "References")
[TR#] Internal test report (see "internal test report references")
Limitations "A" animal trial, "B" bench test, "VIT" in-vitro trial,
"P" published results based on the analysis of human mesh explants,
"PB" published results mainly based on bench tests

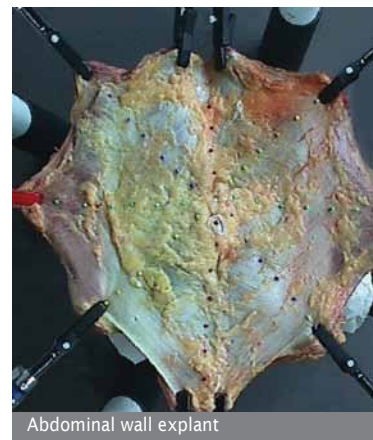
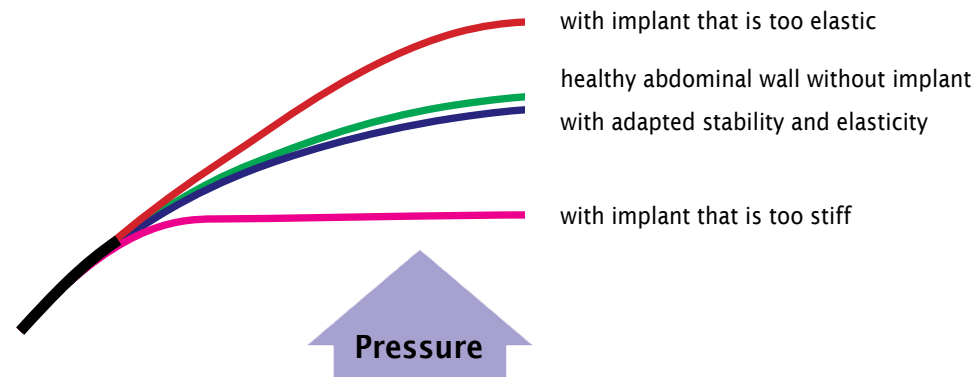


CA_CF_A_A_006_en 001a_240926_d

Dynamometry

Textile implants can bridge and/or reinforce soft tissue or ligaments. Depending on the indication, they have to endure different forces. They also have to cushion different forces - including the extreme stresses associated with coughing, sneezing and laughing. What is needed, therefore, is an appropriate stability and elasticity.

Schematic representation of the behaviour of abdominal walls with different mesh implants under load

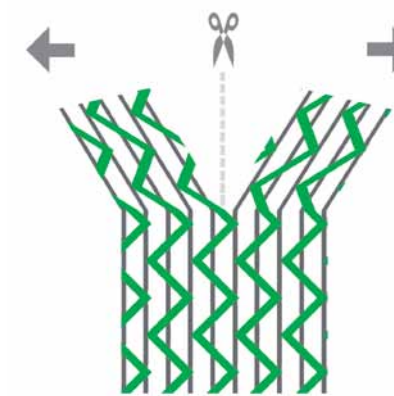


A study of explanted abdominal walls
(source: Aachen University Hospital, Germany)

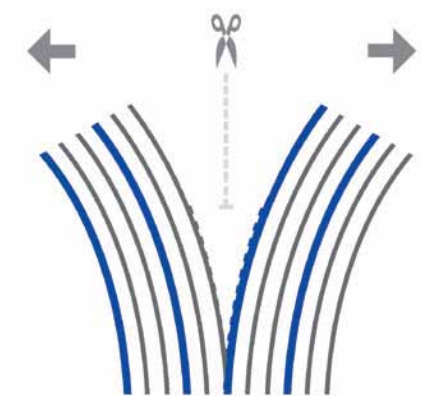
CA_CF_A_A_007_en 001a_240319_d

Tear Propagation Resistance

If a warp-knitted fabric has an inappropriate structure, there is an increased risk of tear propagation after an initial cut. An inappropriate structure means that the individual thread systems are not sufficiently entangled. The failure mechanism here is the loss of stitch integrity, not the tearing of the threads. The multiple meshing technique in warp-knitted* structures reduces the risk of the zipper effect.



**Structurally Stable
Warp-Knitted Mesh Implant**



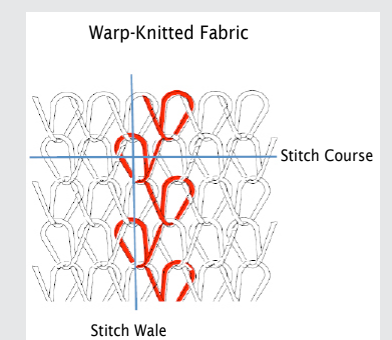
**Structurally Unstable
Mesh Implant**

DynaMesh® products are not woven or conventionally knitted, but warp-knitted*.

This technology, unlike any other, makes it possible to make specific variations in the shape and structure of a textile implant, which means that we can construct features with different characteristics in different places within the structure. It is impossible to achieve a more accurate adaptation of implants to the relevant indication.

*Warp-Knitted Fabric

Warp-knitted fabrics are a type of knitted fabric. They are produced industrially on warp-knitting machines via stitch formation from thread systems.

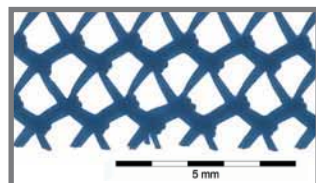


CA_CF_A_A_008_en 001a_240319_d

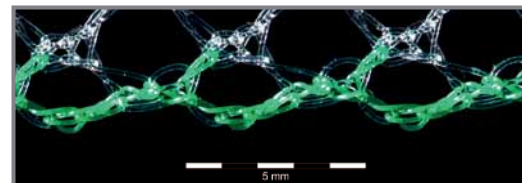
Smooth Warp-Knitted Selvedges

Most DynaMesh® implants are not simply cut from a flat piece of mesh.

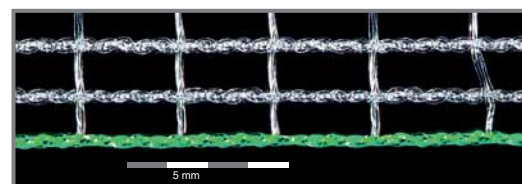
Special techniques used in our customised warp-knitting machines enable the production of smooth warp-knitted selvedges.



Conventional Mesh

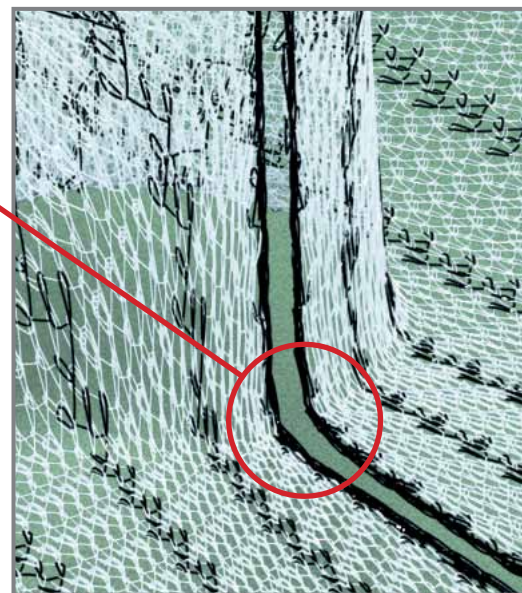


DynaMesh®-LICHTENSTEIN



DynaMesh®-SIS soft

Also in three-dimensionally shaped implants



DynaMesh®-IPST-R visible

CA_CF_A_A_009_en_001a_240319_d

Effective Porosity

During incorporation, the filaments are enclosed by an inner (pink) and outer (blue) granuloma. When the distance between adjacent filaments is too small, there is a risk of bridging scar tissue, resulting in a closed pore. Sufficiently large pores can reduce this risk [8^P].

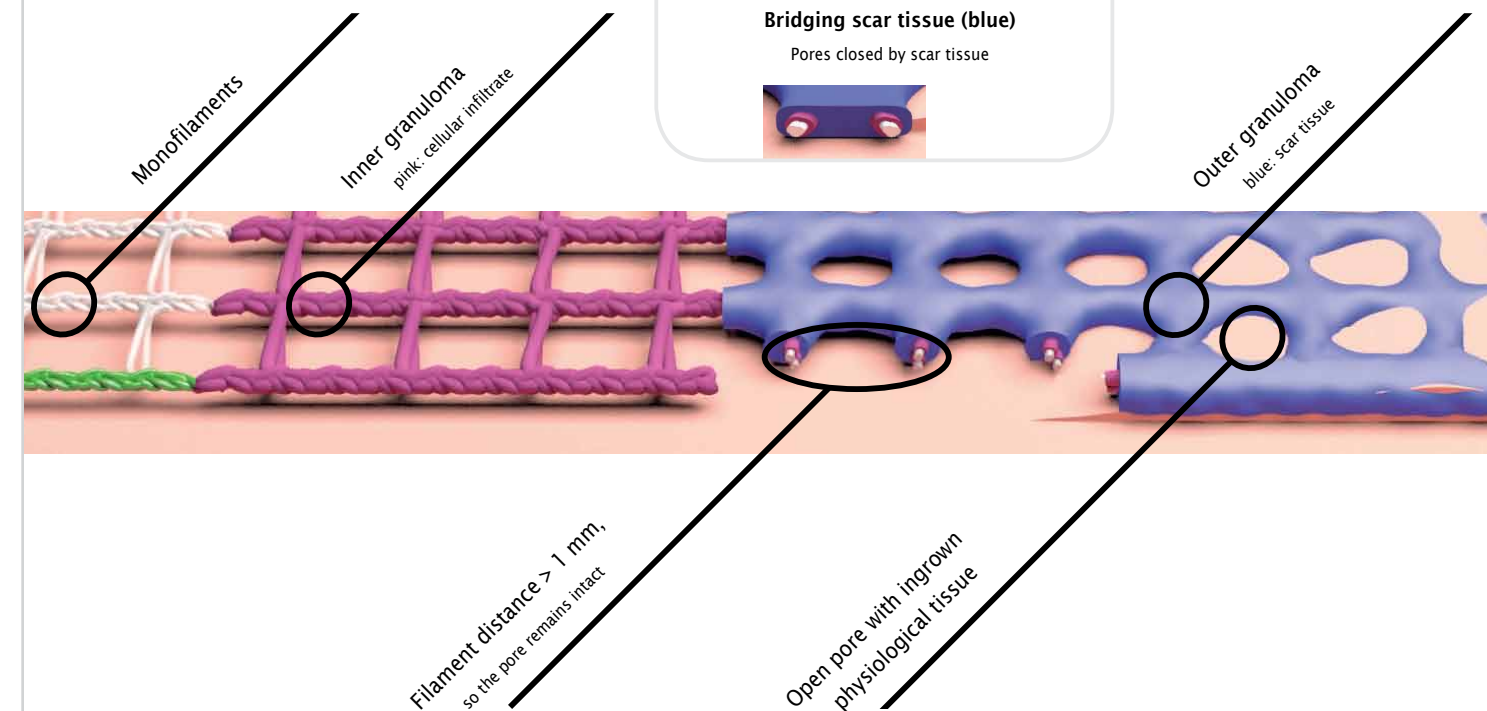
What is a sufficient distance between adjacent filaments? PP mesh implants should have a **filament distance of at least 1 mm** in all directions to avoid bridging (entire pore closed by scar tissue). A **filament distance of 0.6 mm** is sufficient for implants made of PVDF to keep the pores open [68^A, 105^A].

Schematic example of PP:

Filament distance < 1 mm

Bridging scar tissue (blue)

Pores closed by scar tissue



[#] Reference "#" (see "References")
[TR#] Internal test report (see "internal test report references")
Limitations "A" animal trial, "B" bench test, "VIT" in-vitro trial,
"P" published results based on the analysis of human mesh explants,
"PB" published results mainly based on bench tests

Textile porosity refers to the permeable component of a mesh implant **before** the body has reacted to it.

Effective porosity refers to the permeable component of a mesh implant **after** the body has reacted to it.

A mesh implant that only has pores < 1 mm (0% effective porosity) has a risk of excessive scar tissue formation.

CA_CF_A_A_010_en_001a_240319_d

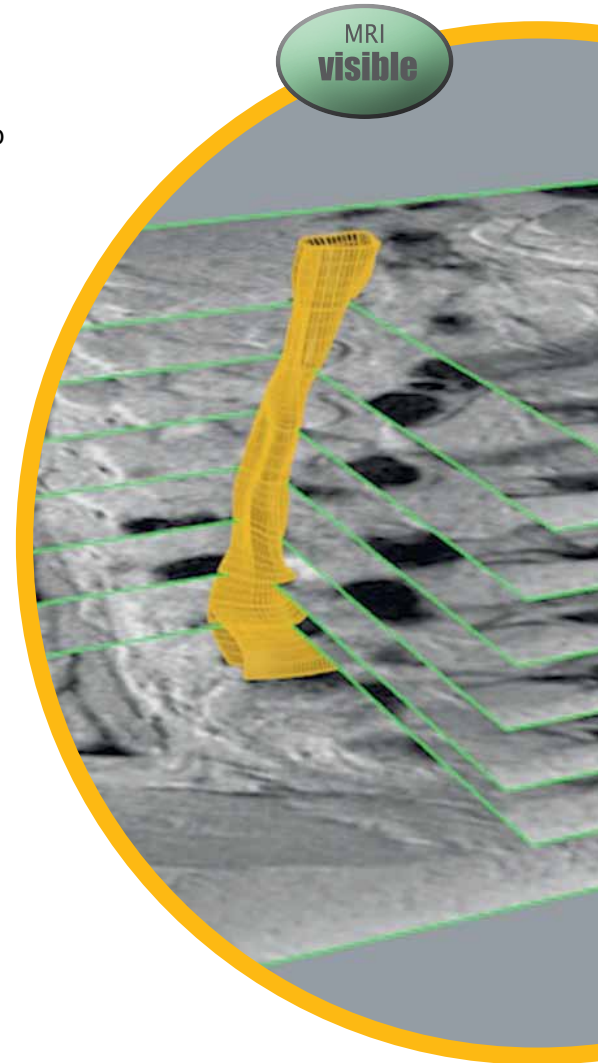
DynaMesh® visible

All DynaMesh® visible implants can be properly visualised in vivo using magnetic resonance imaging (MRI), facilitating analysis of correct surgical technique and mesh placement.
[7, 29A, 51, 54, 56, 62, 69-71, 76, 90, 115]

MRI sequences can be used to create three-dimensional reconstructions to check the position and condition of the mesh implant.

DynaMesh® visible is the world's first technology that enables non-invasive visualisation of textile implants in vivo.

The black coloured filaments contain a small proportion of triiron tetraoxide that is incorporated into the polymer matrix. This innovation has won an award from the German Federal Ministry of Education and Research (FKZ 01EZ0849).



Award-winner in the innovation competition hosted by the



The development was supported by the General Federal Ministry of Education and Research (FKZ 01EZ0849).

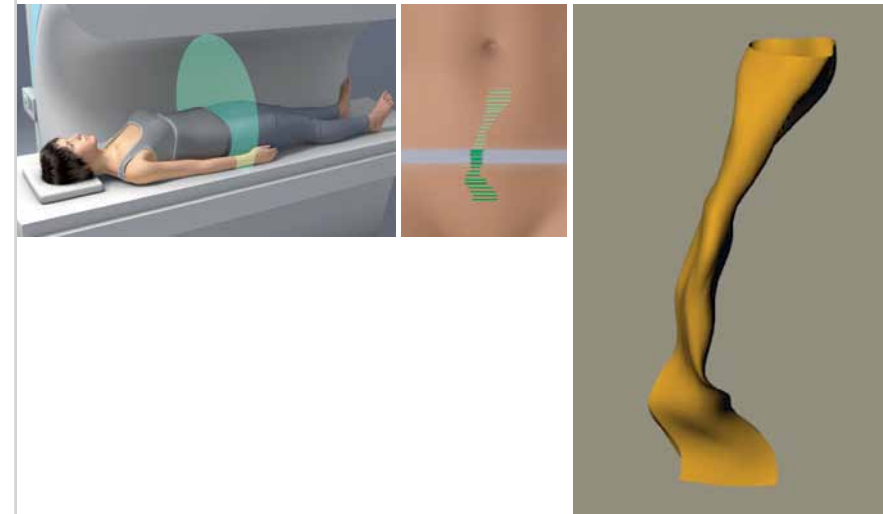
[#] Reference "#" (see "References")
[TR#] Internal test report (see "internal test report references")
Limitations "A" animal trial, "B" bench test, "VIT" in-vitro trial,
"P" published results based on the analysis of human mesh explants,
"PB" published results mainly based on bench tests

CA_CF_A_A_011_en_001a_240730_d

DynaMesh® visible

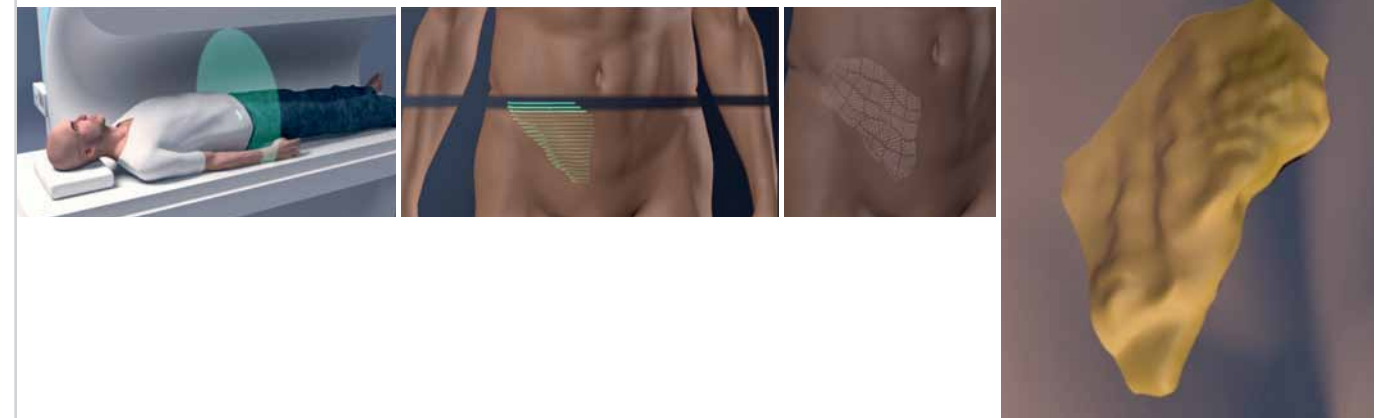
DynaMesh®-PRS visible

From magnetic resonance imaging to three-dimensional reconstruction



DynaMesh®-ENDOLAP visible

From magnetic resonance imaging to three-dimensional reconstruction



In MRI, the body part to be examined is scanned stepwise and captured as a sectional image sequence. Among other things, a three-dimensional reconstruction can be created from the sectional images.

DynaMesh® MRI - Animation: MRI Reconstruction with DynaMesh®-PRP visible

<https://de.dyna-mesh.com/Vi069xx>



DynaMesh® MRI - Animation: MRI Reconstruction with DynaMesh®-PRS visible

<https://de.dyna-mesh.com/Vi067xx>



DynaMesh®-ENDOLAP visible - Animation: MRI visible - 3D Implant Remodelling

<https://de.dyna-mesh.com/Vi032xx>

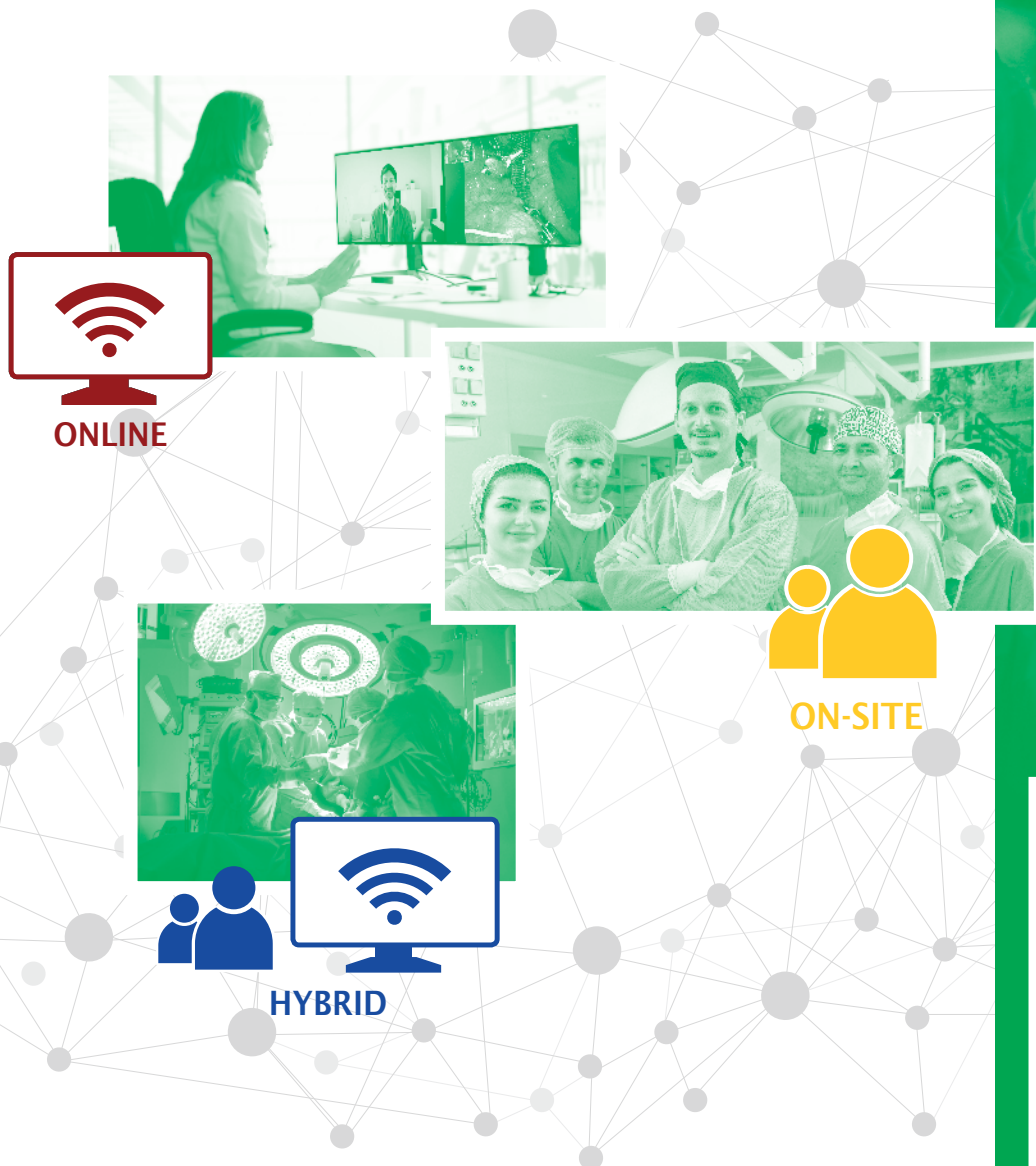


CA_CF_A_A_012_en_001a_240319_d

MEDICAL EDUCATION

platform for
HEALTHCARE PROFESSIONALS

This platform provides
excellent surgical and theoretical training
for the use of medical devices,
in particular DynaMesh® implants.



Visit us online:
www.listo.academy

LiSTO.academy
powered by **DynaMesh®**



LiSTO.academy is a
recognised **educational**
partner of:



European
Hernia Society



International Society for
Gynecologic Endoscopy

DynaMesh®

Tailored Implants Made of **PVDF**

Some of our devices may not be available in your
country. Please contact your local distributor for
more information.

www.dyna-mesh.com

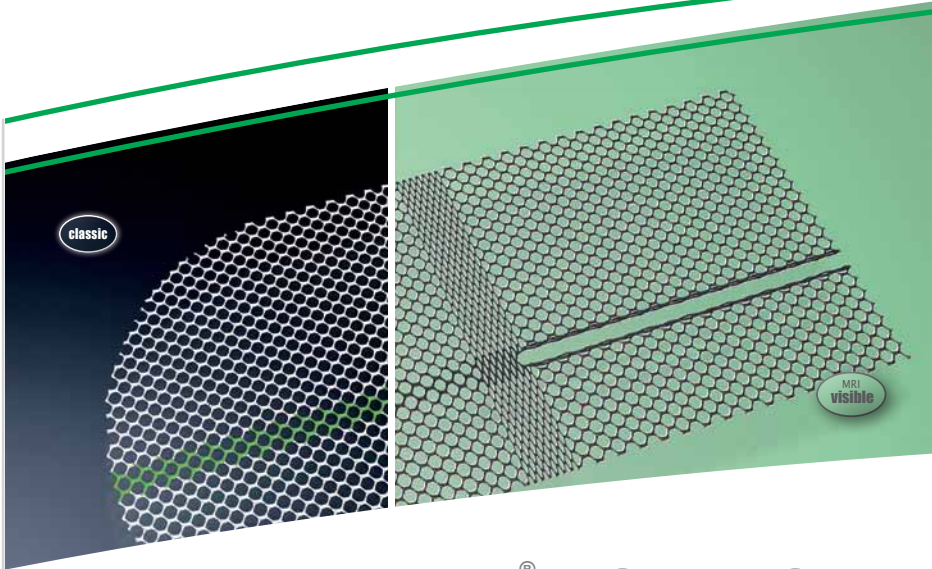
hergestellt durch / manufactured by /
fabriqué par / fabricado por / fabbricato da
FEG Textiltechnik
Forschungs- und Entwicklungsgesellschaft mbH
Prager Ring 70
52070 Aachen, Germany



Distributed by:

hergestellt durch / manufactured by: FEG Textiltechnik Forschungs- und Entwicklungsgesellschaft mbH
Prager Ring 70, 52070 Aachen, Germany · www.dyna-mesh.com

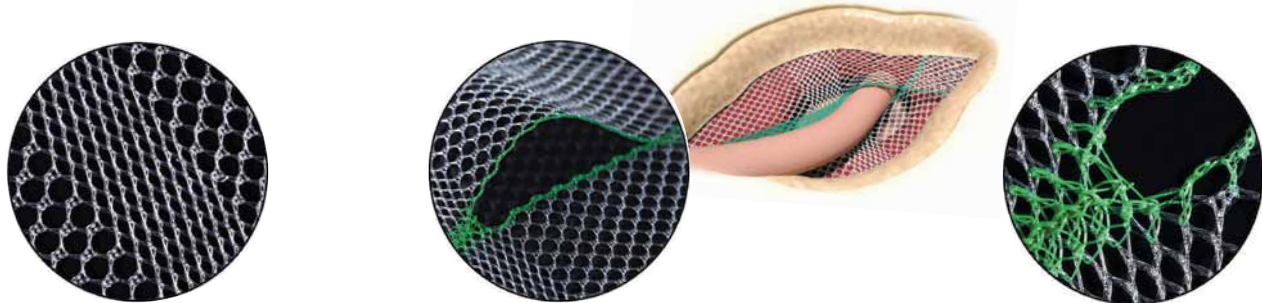
made
in
Germany



DynaMesh®-LICHTENSTEIN and DynaMesh®-LICHTENSTEIN visible implants are intended for the surgical treatment of inguinal hernias and permanently bridge and reinforce the soft tissue in the groin region in the area of the hernia defect.

DynaMesh®-LICHTENSTEIN

For Example: inguinal hernia, left side



Varying Pore Size

The devices have areas with different pore sizes.

Prefabricated Slit & Smooth Warp-Knitted Selvedges

The devices have a prefabricated slit with smooth warp-knitted selvedges, and they have tear propagation resistance [TR82].

Visibility & Handling

The colouring provides better intraoperative visibility and handling of the device.

DynaMesh®-LICHTENSTEIN

Use and Properties

Product	DynaMesh®-LICHTENSTEIN (1)	DynaMesh®-LICHTENSTEIN visible (2)
Surgical Treatment	Inguinal Hernias	
Surgical Approach	Open	
Surgical Technique	Lichtenstein	
Mesh Position	Onlay (Anterior)	
Fixation	Sutures / Tacks / Tissue Adhesives*	
Coloured Filaments	Green	Black
Smooth Warp-Knitted Selvedges	●	
Visible Technology	●	●
Materials	- Polyvinylidene fluoride (PVDF) (CAS 24937-79-9) > 99% (w/w) (1) (2) - Phthalocyanine green (CAS 1328-53-6) < 1% (w/w) (1) - Triiron tetraoxide (CAS 1317-61-9) < 1% (w/w) (2)	
Polymer (Monofilament)	PVDF	
Biocompatibility	● [TR1]	
Ageing Resistance	● [2A, 5VIT, 27A, 52VIT, 93A, 101]	
Tear Propagation Resistance	● [TR82]	
Effective Porosity	● High effective porosity reduces inflammation and the risk of excessive scar formation. [103P, TR83]	
Klinge's Mesh Classification	Class 1a [102P, TR83]	

* Tissue adhesive can be used for fixation for direct or indirect inguinal hernias with a defect size of 1.5 cm to 3 cm (European Hernia Society Classification: M2 or L2).

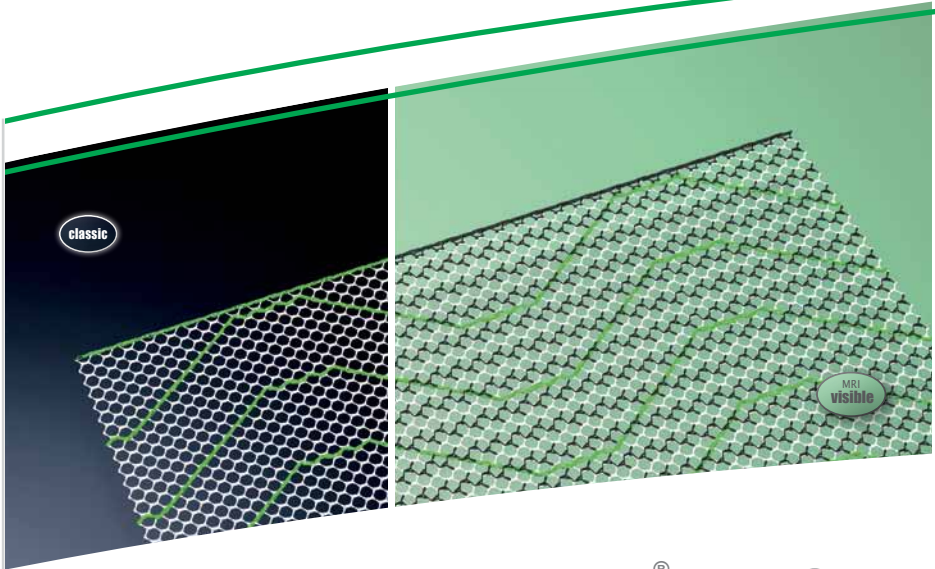
Product Range

When selecting the mesh size, ensure sufficient overlap!

DynaMesh®-LICHTENSTEIN	06 cm x 11 cm	PV110611F1/F3/F5/F10
	7.5 cm x 15 cm	PV110715F1/F3/F5/F10
	10 cm x 15 cm	PV111015F1/F3/F5
DynaMesh®-LICHTENSTEIN visible	06 cm x 11 cm	PV170611F3/F10
	7.5 cm x 15 cm	PV170715F1/F3/F10
	FX = X unit(s)/box (e.g. F3 = 3 unit(s)/box)	
	Can be used both for the right and the left side.	

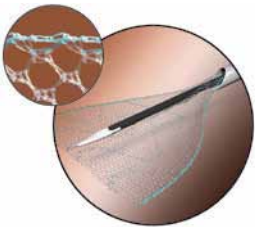
- Applies to all product sizes
- Does not apply
- [#] Reference "#" (see "References")
- [TR#] Internal test report (see "internal test report references")
- Limitations "A" animal trial, "B" bench test, "VIT" in-vitro trial, "P" published results based on the analysis of human mesh explants, "PB" published results mainly based on bench tests

Distributed by:



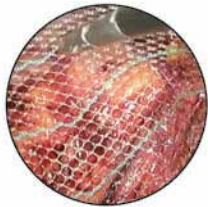
DynaMesh®-ENDOLAP

DynaMesh®-ENDOLAP and DynaMesh®-ENDOLAP visible implants are intended for the surgical treatment of inguinal or femoral hernias and permanently bridge and reinforce the soft tissue in the groin region in the area of the hernia defect.



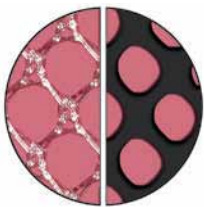
Smooth Warp-Knitted Selvages

The devices have smooth warp-knitted selvages.



Choice of Method

The devices must be placed by means of laparoscopic transabdominal preperitoneal (TAPP) or endoscopic totally extraperitoneal (TEP)¹⁾ hernia repair. The colouring provides better intraoperative visibility and handling of the device.



High Effective Porosity

The devices have a high effective porosity, which is known to reduce inflammation and the risk of excessive scar formation. [103^P, TR23]

DynaMesh®-ENDOLAP visible - Animation:
MRI visible - 3D Implant Remodelling
<https://de.dyna-mesh.com/Vi032xx>



¹⁾ Image of surgery courtesy of Dr. A. Kuthe, DRK-Krankenhaus Clementinenhaus, Hanover, Germany

DynaMesh®-ENDOLAP

Use and Properties

Product	DynaMesh®-ENDOLAP ⁽¹⁾	DynaMesh®-ENDOLAP visible ⁽²⁾
Surgical Treatment	Inguinal Hernias / Femoral Hernias	
Surgical Approach	Laparoscopic / Endoscopic	
Surgical Technique	TAPP / TEP	
Mesh Position	Preperitoneal (Posterior)	
Fixation	(None)* / Sutures / Tissue Adhesives / Tacks	
Coloured Filaments	Green	
Smooth Warp-Knitted Selvages	●	
Visible Technology	●	●
Materials	- Polyvinylidene fluoride (PVDF) (CAS 24937-79-9) > 99% (w/w) ⁽¹⁾ ⁽²⁾ - Phthalocyanine green (CAS 1328-53-6) < 1% (w/w) ⁽¹⁾ ⁽²⁾ - Triiron tetraoxide (CAS 1317-61-9) < 1% (w/w) ⁽²⁾	
Polymer (Monofilament)	PVDF	
Biocompatibility	● [TR1]	
Ageing Resistance	● [2 ^A , 5 ^{VIT} , 27 ^A , 52 ^{VIT} , 93 ^A , 101]	
Tear Propagation Resistance	● [TR21]	
Effective Porosity	●	
	High effective porosity reduces inflammation and the risk of excessive scar formation. [103 ^P , TR23]	
Klinge's Mesh Classification	Class 1a [102 ^P , TR23]	

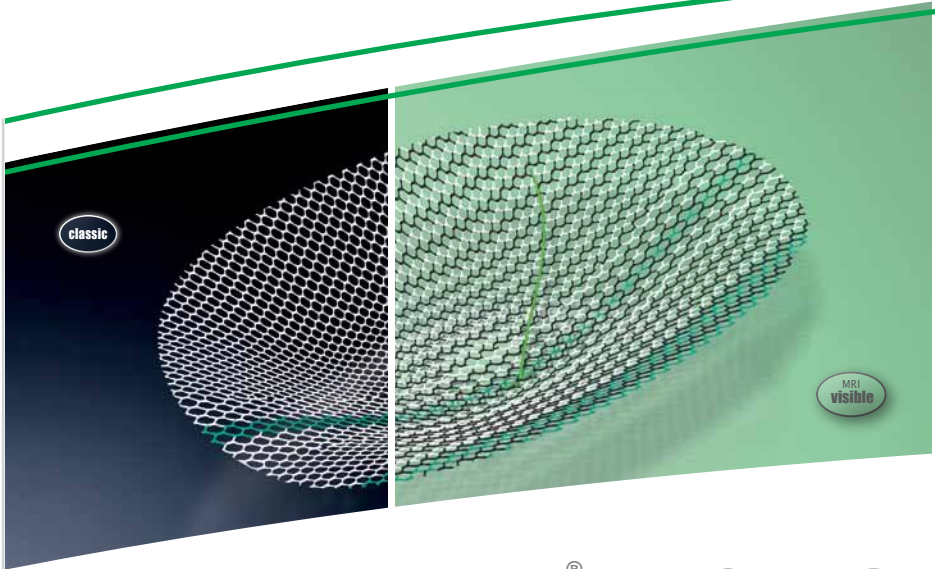
* Based on current knowledge, with the exception of large direct inguinal hernias (European Hernia Society classification: M3), it appears possible to dispense with any form of fixation.

Product Range

When selecting and cutting the device, sufficient defect overlap must be ensured to minimise the likelihood of the hernia recurring.		
DynaMesh®-ENDOLAP	7.5 cm x 15 cm	PV100715F1/F3
	10 cm x 15 cm	PV101015F1/F3/F10
	12 cm x 15 cm	PV101215F1/F3/F10
	13 cm x 15 cm	PV101315F1/F3
	13 cm x 17 cm	PV101317F1/F3/F10
	15 cm x 15 cm	PV101515F1/F3/F10
DynaMesh®-ENDOLAP visible	10 cm x 15 cm	PV141015F1/F3/F10
	15 cm x 15 cm	PV141515F1/F3/F10
	15 cm x 30 cm	PV141530F1
FX = X unit(s)/box (e.g. F3 = 3 unit(s)/box)		

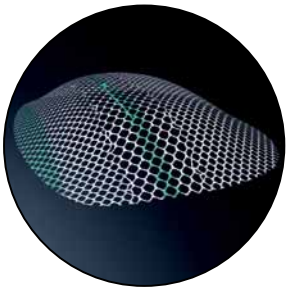
● Applies to all product sizes
● Does not apply
[#] Reference "#" (see "References")
[TR#] Internal test report (see "internal test report references")
Limitations "A" animal trial, "B" bench test, "VIT" in-vitro trial,
"P" published results based on the analysis of human mesh explants,
"PB" published results mainly based on bench tests

Distributed by:



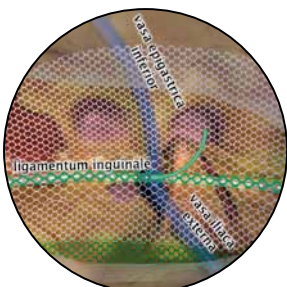
DynaMesh®-ENDOLAP 3D

DynaMesh®-ENDOLAP 3D and DynaMesh®-ENDOLAP 3D visible implants are intended for the surgical treatment of inguinal or femoral hernias and permanently bridge and reinforce the soft tissue in the groin region in the area of the hernia defect.



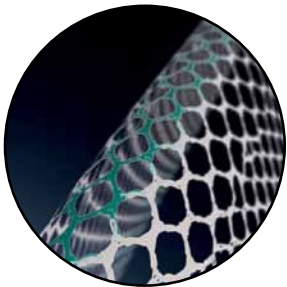
3D Shape

The device is a preformed three-dimensional mesh with a green central longitudinal marking, a green edge marking and centrally attached green filament ends.



Standardised Positioning

The device must be placed in such a way that the central green longitudinal marking is aligned with the inguinal ligament, the green central filament ends are located in projection to the junction of the inferior epigastric blood vessels to the external iliac blood vessels, and the green edge marking points dorsocaudally. The green filament ends must point to the user.



Varying Pore Size

The pore size of the device varies laterally to the longitudinal marking.

DynaMesh®-ENDOLAP 3D - Animation:
Total Extraperitoneal Endoscopic Hernioplasty (TEP)
<https://de.dyna-mesh.com/Vi012xx>



DynaMesh®-ENDOLAP 3D - Animation:
TAPP Technique for Treatment of Inguinal Hernia
<https://de.dyna-mesh.com/Vi013xx>



DynaMesh®-ENDOLAP 3D

Use and Properties

Product	DynaMesh®- ENDOLAP 3D ⁽¹⁾	DynaMesh®- ENDOLAP 3D visible ⁽²⁾
Surgical Treatment	Inguinal Hernias / Femoral Hernias	
Surgical Approach	Laparoscopic / Endoscopic	
Surgical Technique	TAPP / TEP	
Mesh Position	Preperitoneal (Posterior)	
Fixation	(None)* / Sutures / Tissue Adhesives / Tacks	
Green Central and Edge Marking	●	
Visible Technology	●	
Materials	- Polyvinylidene fluoride (PVDF) (CAS 24937-79-9) > 99% (w/w) ^{(1) (2)} - Phthalocyanine green (CAS 1328-53-6) < 1% (w/w) ^{(1) (2)} - Triiron tetraoxide (CAS 1317-61-9) < 1% (w/w) ⁽²⁾	
Polymer (Monofilament)	PVDF	
Biocompatibility	● [TR1]	
Ageing Resistance	● [2 ^A , 5 ^{VIT} , 27 ^A , 52 ^{VIT} , 93 ^A , 101]	
Tear Propagation Resistance	● [TR21]	
Effective Porosity	● High effective porosity reduces inflammation and the risk of excessive scar formation. [103 ^P , TR23]	
Klinge's Mesh Classification	Class 1a [102 ^P , TR23]	

* Based on current knowledge, with the exception of large direct inguinal hernias (European Hernia Society classification: M3), it appears possible to dispense with any form of fixation.

Product Range

When selecting and cutting the device, sufficient defect overlap must be ensured to minimise the likelihood of the hernia recurring.

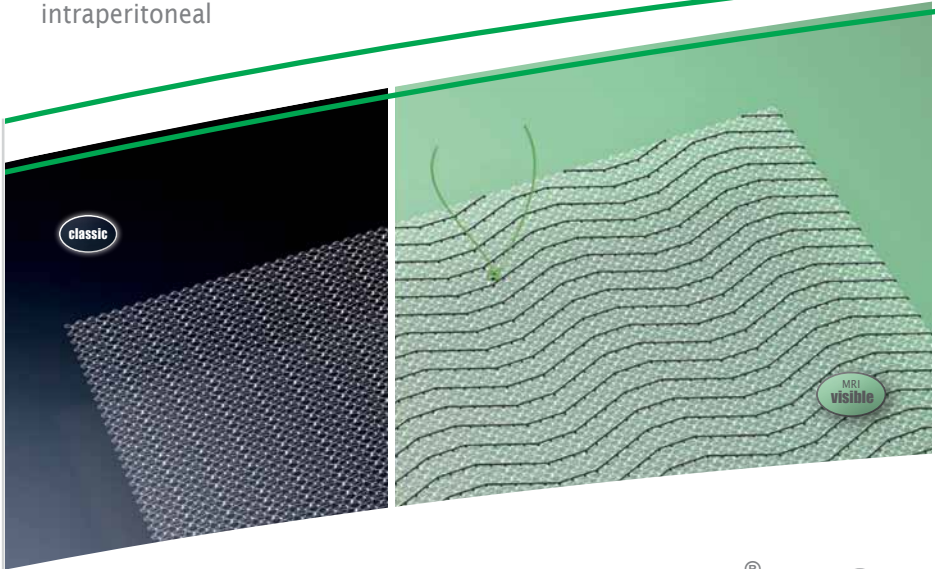
DynaMesh®-ENDOLAP 3D	09 cm x 14 cm	PV130914F1/F3
	10 cm x 15 cm regular	PV131015F1/F3
	12 cm x 17 cm	PV131217F1/F5
DynaMesh®-ENDOLAP 3D visible	09 cm x 14 cm	PV120914F1/F3
	10 cm x 15 cm	PV121015F1/F3
	12 cm x 17 cm	PV121217F1

FX = X unit(s)/box (e.g. F3 = 3 unit(s)/box)

Can be used both for the right and the left side.

● Applies to all product sizes
● Does not apply
[#] Reference "#" (see "References")
[TR#] Internal test report (see "internal test report references")
Limitations "A" animal trial, "B" bench test, "VIT" in-vitro trial,
"P" published results based on the analysis of human mesh explants,
"PB" published results mainly based on bench tests

Distributed by:



DynaMesh®-IPOM and DynaMesh®-IPOM visible implants are intended for the surgical treatment of epigastric hernias, umbilical or incisional hernias, and the treatment of parastomal hernias following ostomy surgery, and permanently bridge and reinforce the soft tissue of the abdominal wall in the area of the abdominal wall defect.

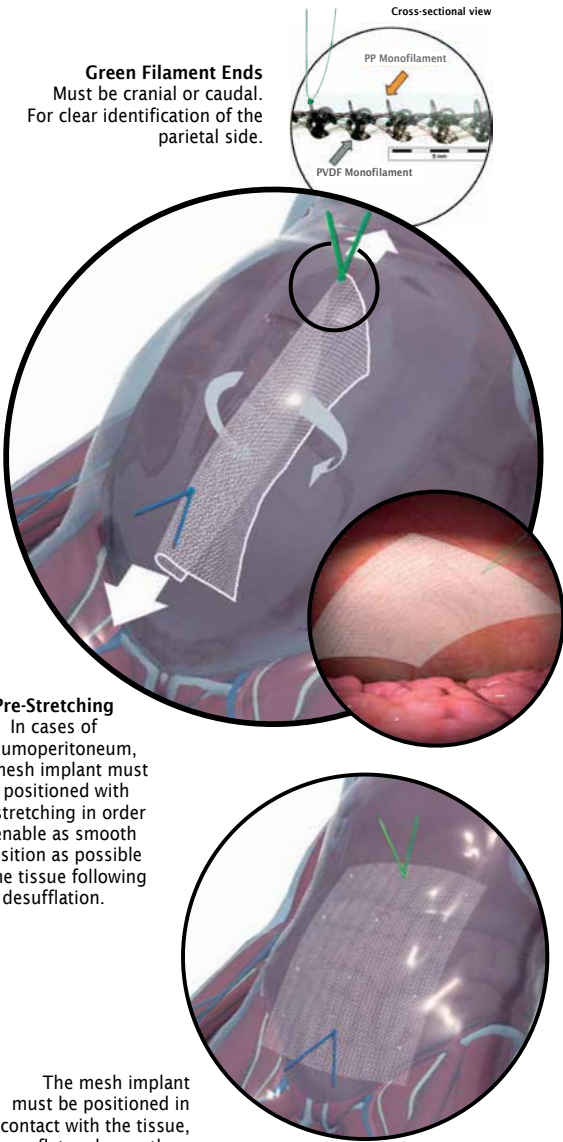
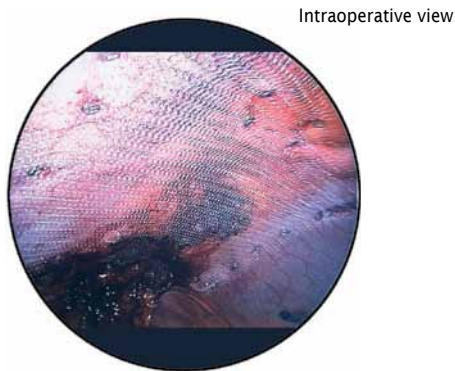
DynaMesh®-IPOM

DynaMesh®-IPOM and DynaMesh®-IPOM visible implants are primarily made of polyvinylidene fluoride (PVDF). The mesh implants are warp-knitted using coloured and uncoloured polyvinylidene fluoride (PVDF) monofilaments and uncoloured polypropylene (PP) monofilaments.

Positioning

DynaMesh®-IPOM and DynaMesh®-IPOM visible implants have a parietal side and a visceral side. The parietal side is identified by the **green filament** ends and consists of PVDF on the surface and a small proportion of PP, whereas the visceral side consists of PVDF on the surface.

The mesh implant must be placed in such a way that the green filament ends are always oriented **towards the abdominal wall**. At the same time, the mesh implant must be oriented so that the green filament ends are **cranial or caudal**.



Use and Properties

Product	DynaMesh®-IPOM ⁽¹⁾	DynaMesh®-IPOM visible ⁽²⁾
Surgical Treatment	Umbilical Hernias / Epigastric Hernias / Incisional Hernias / Parastomal Hernias	
Surgical Approach	Minimally Invasive / Open	
Mesh Position	Intraperitoneal* according to the intraperitoneal onlay mesh technique (IPOM).	
Fixation	Suture / Tacks / No Fibrin Glue	
Green Filament Ends	●	
Visible Technology	●	
Materials	- Polyvinylidene fluoride (PVDF) (CAS 24937-79-9) > 85% (w/w) ^{(1) (2)} - Polypropylene (PP) (CAS 9003-07-0) < 13% (w/w) ^{(1) (2)} - Phthalocyanine green (CAS 1328-53-6) < 1% (w/w) ^{(1) (2)} - Triiron tetraoxide (CAS 1317-61-9) < 1% (w/w) ⁽²⁾	
Polymers (Monofilament)	PVDF, PP	
Biocompatibility	● [TR1]	
Ageing Resistance	● [2 ^A , 5 ^{VIT} , 27 ^A , 52 ^{VIT} , 93 ^A , 101]	
Tear Propagation Resistance	● [TR62]	
Effective Porosity	● High effective porosity reduces inflammation and the risk of excessive scar formation. [103 ^P , TR64]	
Klinge's Mesh Classification	Class 1a [102 ^P , TR64]	

* In particular cases with an extraperitoneal mesh position in which there is a risk of contact between the mesh implant and the intestine, the device may also be placed extraperitoneally in onlay, sublay and/or preperitoneal mesh position.

DynaMesh®-IPOM and DynaMesh®-IPOM visible implants have a parietal side and a visceral side. The parietal side is identified by green filament ends and consists of PVDF on the surface and a small proportion of PP, whereas the visceral side consists of PVDF on the surface.

● Applies to all product sizes
● Does not apply
[#] Reference "#" (see "References")
[TR#] Internal test report (see "internal test report references")
Limitations "A" animal trial, "B" bench test, "VIT" in-vitro trial,
"P" published results based on the analysis of human mesh explants,
"PB" published results mainly based on bench tests

Distributed by:

Product Range

Cutting/overlapping
When cutting, care must be taken to ensure that the parietal side of the device can still be identified without any doubt. With epigastric hernias, umbilical and parastomal hernias following ostomy surgery, it is crucial to overlap the hernia orifice, whereas with incisional hernias it is crucial to overlap the scar tissue.
For further information on cutting/overlapping, please refer to the instructions for use.

DynaMesh®-IPOM	○	d 12 cm round	IP070012F1/F3
	□	07 cm x 06 cm	IP070706F1/F5
		10 cm x 15 cm	IP071015F1/F3
		15 cm x 15 cm	IP071515F1/F3/F5
		15 cm x 20 cm	IP071520F1/F3/F5
		15 cm x 40 cm	IP071540F1
		20 cm x 20 cm	IP072020F1
		20 cm x 25 cm	IP072025F1
		20 cm x 30 cm	IP072030F1/F3
		28 cm x 37 cm	IP072837F1
		30 cm x 30 cm	IP073030F1
		30 cm x 45 cm	IP073045F1
DynaMesh®-IPOM visible	○	d 12 cm round	IP080012F1/F3
	□	07 cm x 06 cm	IP080706F5
		10 cm x 15 cm	IP081015F1
		15 cm x 15 cm	IP081515F1/F3
		15 cm x 20 cm	IP081520F1/F3
		20 cm x 20 cm	IP082020F1
		20 cm x 25 cm	IP082025F1
		20 cm x 30 cm	IP082030F1/F3
		28 cm x 37 cm	IP082837F1
		30 cm x 30 cm	IP083030F1

FX = X unit(s)/box (e.g. F3 = 3 unit(s)/box)
size: laterolateral x craniocaudal

DynaMesh®-IPOM - Animation: The 3 Key Aspects for DynaMesh®-IPOM (best practice example) https://de.dyna-mesh.com/Vi108en	
DynaMesh®-IPOM visible - Animation: 3D Reconstruction https://de.dyna-mesh.com/Vi051xx	
DynaMesh®-IPOM - Animation: Laparoscopic Repair of Incisional Hernia https://de.dyna-mesh.com/VA_IP01_001en_240703	

Distributed by:

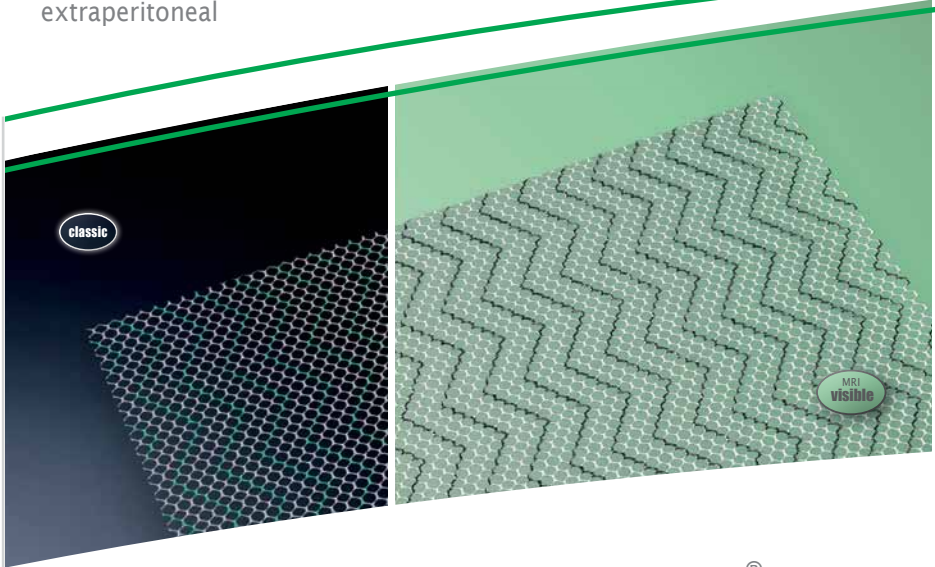
Some of our devices may not be available in your country. Please contact your local distributor for more information.

www.dyna-mesh.com

hergestellt durch / manufactured by /
fabriqué par / fabricado por / fabbricato da
FEG Textiltechnik
Forschungs- und Entwicklungsgesellschaft mbH
Prager Ring 70
52070 Aachen, Germany



Distributed by:



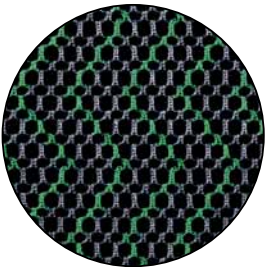
DynaMesh®-CICAT and DynaMesh®-CICAT visible implants are intended for the surgical treatment of epigastric hernias, umbilical or incisional hernias, and the prevention of incisional hernias, and permanently bridge and reinforce the soft tissue of the abdominal wall in the area of the abdominal wall defect.

DynaMesh®-CICAT



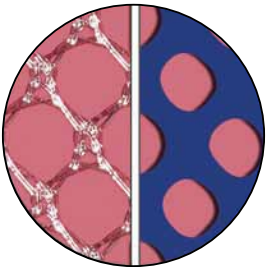
Anti-Slip Surface

The devices have an **anti-slip surface** that **ensures stable positioning** of the mesh with reduced fixation compared to other devices available on the market. [132^{PB}, 133^{PB}, 134]



Dynamometric Positioning

For the **correct dynamometric positioning** of the device, ensure that the green or black marking strips are in a **cranio-caudal orientation**.



High Effective Porosity

The devices have a **high effective porosity**, which is known to reduce inflammation and the risk of excessive scar formation. [103^P, TR33, TR35]



longitudinal



transversal

The device must not be placed partially or completely intraperitoneally.

DynaMesh®-CICAT

Use and Properties

Product	DynaMesh®-CICAT ⁽¹⁾	DynaMesh®-CICAT visible ⁽²⁾
Surgical Treatment	Epigastric Hernias / Umbilical Hernias / Incisional Hernias	
Surgical Approach	Prevention: Incisional Hernia Minimally Invasive / Open	
Mesh Position	Extraperitoneal (onlay, sublay and/or preperitoneal)	
Fixation	Sutures / Tacks / Tissue Adhesives	
Marking Strips	Green	Black
Visible Technology	●	●
Materials	- Polyvinylidene fluoride (PVDF) (CAS 24937-79-9) > 99% (w/w) ⁽¹⁾ ⁽²⁾ - Phthalocyanine green (CAS 1328-53-6) < 1% (w/w) ⁽¹⁾ - Triiron tetraoxide (CAS 1317-61-9) < 1% (w/w) ⁽²⁾	
Polymer (Monofilament)	PVDF	
Biocompatibility	● [TR1]	
Ageing Resistance	● [2 ^A , 5 ^{VIT} , 27 ^A , 52 ^{VIT} , 93 ^A , 101]	
Dynamometric Properties	● [TR38, 128 ^P , 129]	
Tear Propagation Resistance	● [TR31]	
Anti-Slip Surface	● [132 ^{PB} , 133 ^{PB} , 134]	
Effective Porosity	● High effective porosity reduces inflammation and the risk of excessive scar formation. [103 ^P , TR33, TR35]	
Klinge's Mesh Classification	Class 1a [102 ^P , TR33, TR35]	

DynaMesh®-CICAT implants must be placed extraperitoneally in onlay, sublay and/or preperitoneal mesh position.

● Applies to all product sizes
● Does not apply
[#] Reference "#" (see "References")
[TR#] Internal test report (see "internal test report references")
Limitations "A" animal trial, "B" bench test, "VIT" in-vitro trial,
"P" published results based on the analysis of human mesh explants,
"PB" published results mainly based on bench tests

Distributed by:

Product Range

When selecting and cutting the device, sufficient defect/scar overlap must be ensured to minimise the likelihood of the hernia recurring. With epigastric hernias and umbilical hernias, it is crucial to overlap the hernia orifice, whereas with incisional hernias it is crucial to overlap the scar tissue.

DynaMesh®-CICAT		ø 10 cm round	PV090010F1/F3
		05 cm x 06 cm	PV090506F1/F5
		10 cm x 10 cm	PV091010F1/F3/F5
		15 cm x 15 cm	PV091515F1/F3
		30 cm x 30 cm	PV093030F1/F2
		10 cm x 15 cm	PV091015F5
		10 cm x 35 cm	PV091035F1/F2
		15 cm x 25 cm	PV091525F1/F2/F5
		15 cm x 30 cm	PV091530F1/F2/F5
		15 cm x 60 cm	PV091560F1
		18 cm x 40 cm	PV091840F2
		20 cm x 30 cm	PV092030F1/F2/F5
		30 cm x 45 cm	PV093045F1/F3
		45 cm x 60 cm	PV094560F1
		27 cm x 15 cm	PV092715F1/F2
		40 cm x 20 cm	PV094020F1/F2
DynaMesh®-CICAT visible		ø 10 cm round	PV160010F3
		05 cm x 06 cm	PV160506F1/F5
		10 cm x 10 cm	PV161010F3
		15 cm x 15 cm	PV161515F3
		07 cm x 35 cm	PV160735F1/F5
		10 cm x 35 cm	PV161035F2
		15 cm x 25 cm	PV161525F2/F5
		15 cm x 30 cm	PV161530F2
		18 cm x 40 cm	PV161840F2
		20 cm x 30 cm	PV162030F1/F2/F5
		30 cm x 45 cm	PV163045F1/F3
		45 cm x 60 cm	PV164560F1
		40 cm x 20 cm	PV164020F1

FX = X unit(s)/box (e.g. F3 = 3 unit(s)/box)
size: laterolateral x craniocaudal

DynaMesh®-CICAT - Animation: Retromuscular Alloplasty - Incisional Hernia Repair https://de.dyna-mesh.com/Vi008xx	
DynaMesh®-CICAT - Animation: Umbilical Hernia Repair in PUMP Technique https://de.dyna-mesh.com/Vi002en	
DynaMesh®-CICAT - Animation: MILOS Technique https://de.dyna-mesh.com/Vi009xx	

Distributed by:

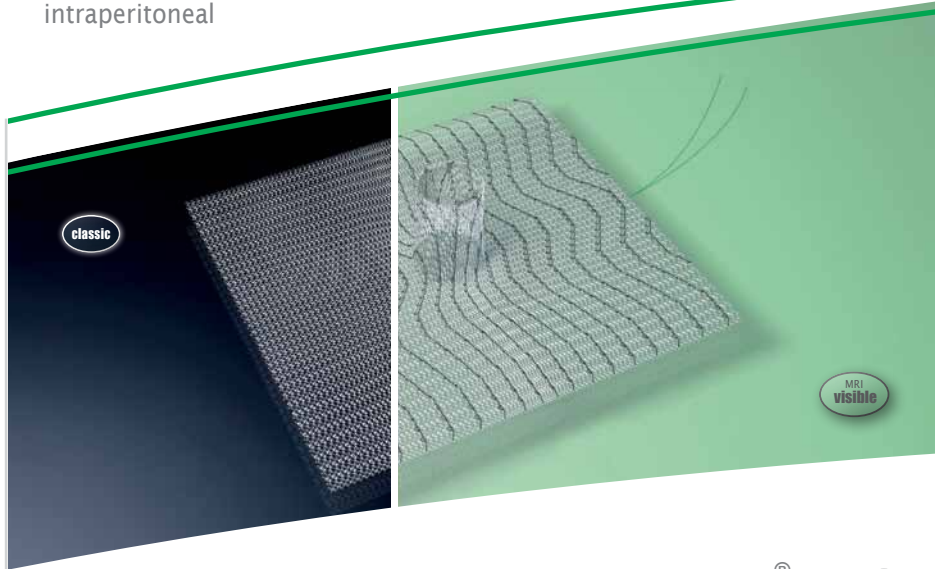
Some of our devices may not be available in your country. Please contact your local distributor for more information.

www.dyna-mesh.com

hergestellt durch / manufactured by /
fabriqué par / fabricado por / fabbricato da
FEG Textiltechnik
Forschungs- und Entwicklungsgesellschaft mbH
Prager Ring 70
52070 Aachen, Germany

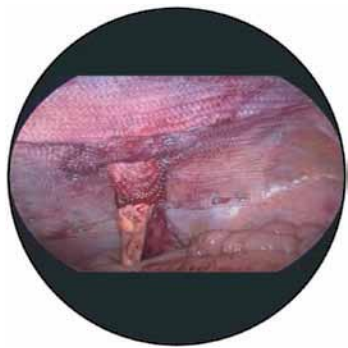


Distributed by:



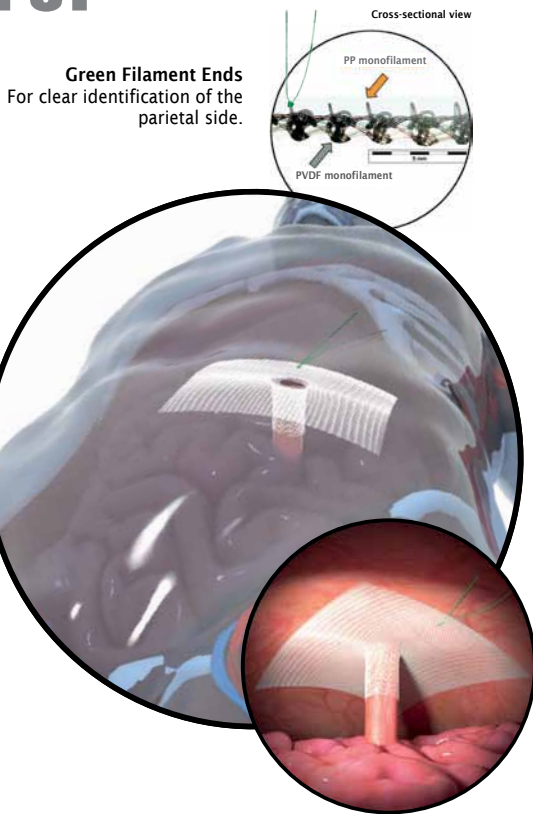
DynaMesh®-IPST, DynaMesh®-IPST visible, DynaMesh®-IPST-D visible, DynaMesh®-IPST-R and DynaMesh®-IPST-R visible implants are intended for the surgical treatment of parastomal hernias, and the prevention (not DynaMesh®-IPST-R or DynaMesh®-IPST-R visible) of parastomal hernias following ostomy surgery, and permanently bridge and reinforce the soft tissue of the abdominal wall in the area of the stoma.

DynaMesh®-IPST

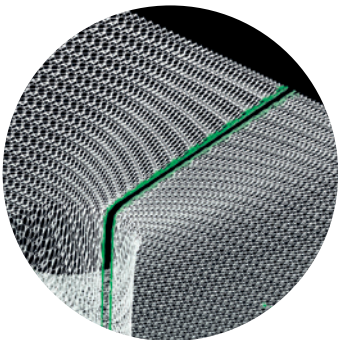
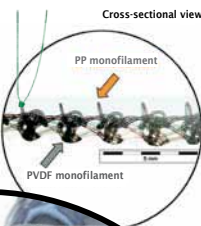


3D Funnel

The device has a passage point with a connected funnel for the passage of the intestine.
The base area of the device must be positioned in contact with the tissue, as flat and smooth as possible, with the funnel pointing in the direction of the abdominal cavity.
When selecting the device, the diameter of the passage point should be chosen so that the intestine is tightly sheathed in the funnel.



Green Filament Ends
For clear identification of the parietal side.



Prefabricated Slit & Smooth Warp-Knitted Selvedges

Only DynaMesh®-IPST-R and DynaMesh®-IPST-R visible have a one-sided slit along the funnel and the base area (mesh flaps), starting from the passage point.
During positioning, the tight sheathing of the intestine in the funnel is achieved through appropriate overlapping of the mesh flaps with non-absorbable closure of the aperture.

DynaMesh®-IPST

DynaMesh®-IPST implants (1)-(5) must be inserted via an appropriate minimally invasive or open approach and must be placed intraperitoneally.

DynaMesh®-IPST implants (1)-(5) have a parietal side and a visceral side. The parietal side is identified by green filament ends and consists of PVDF on the surface and a small proportion of PP, whereas the visceral side consists of PVDF on the surface.

When using DynaMesh®-IPST-D visible (3), attention must be paid to the side specificity (left-sided/right-sided stoma), through which a particularly large overlap in a cranial as well as in a medial direction is ensured.

When positioning DynaMesh®-IPST-R and DynaMesh®-IPST-R visible (4) (5), the tight sheathing of the intestine in the funnel is achieved through appropriate overlapping of the mesh flaps with non-absorbable closure of the aperture.

Use and Properties

Product	DynaMesh®-IPST (1) / -IPST visible (2)	DynaMesh®-IPST-D visible (3)	DynaMesh®-IPST-R (4) / -IPST-R visible (5)
Surgical Treatment	Parastomal Hernia (Repair / Prevention)		Parastomal Hernia (Repair)
Surgical Approach	Minimally Invasive / Open		
Surgical Technique	Chimney Technique		
Mesh Position	Intraperitoneal		
Fixation	Suture / Tacks / No Fibrin Glue		
Green Filament Ends	●		
Smooth Warp-Knitted Selvedges	● (1) - (3)		● (4) (5)
Visible Technology	● (1) / ● (2)	● (3)	● (4) / ● (5)
Materials	- Polyvinylidene fluoride (PVDF) (CAS 24937-79-9) > 85% (w/w) (1) - (5) - Polypropylene (PP) (CAS 9003-07-0) < 13% (w/w) (1) - (5) - Phthalocyanine green (CAS 1328-53-6) < 1% (w/w) (1) - (5) - Triiron tetraoxide (CAS 1317-61-9) < 1% (w/w) (2) (3) (5)		
Polymers (Monofilament)	PVDF, PP		
Biocompatibility	● [TR1]		
Ageing Resistance	● [2A, 5VIT, 27A, 52VIT, 93A, 101]		
Effective Porosity	● High effective porosity reduces inflammation and the risk of excessive scar formation. [103P, TR71]		
Klinge's Mesh Classification	Class 1a [102P, TR71B]		

● Applies to all product sizes
● Does not apply
[#] Reference "#" (see "References")
[TR#] Internal test report (see "Internal test report references")
Limitations "A" animal trial, "B" bench test, "VIT" in-vitro trial,
"P" published results based on the analysis of human mesh explants,
"PB" published results mainly based on bench tests

Distributed by:

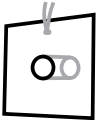
Hernias
Parastomal Hernia
intraperitoneal

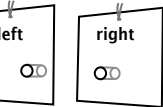
DynaMesh®-IPST

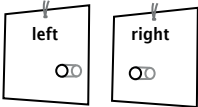
Product Range

Prevention and Repair of Parastomal Hernia

The diameter of the mesh funnel should be chosen so that the intestine is tightly sheathed. In repair, sufficient defect overlap and coverage of the base of the passage is necessary. When using DynaMesh®-IPST-D visible, attention must be paid to the side specificity (left-sided/right-sided stoma).

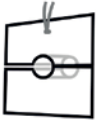
	DynaMesh®-IPST	Funnel length: 4.0 cm	
		ø 02 cm x 15 cm x 15 cm (L4)	IP072415F1
		Funnel length: 2.5 cm	
		ø 02 cm x 15 cm x 15 cm	IP070215F1
		ø 02 cm x 25 cm x 25 cm	IP070225F1
		ø 03 cm x 16 cm x 16 cm	IP070316F1
		ø 04 cm x 17 cm x 17 cm	IP070417F1

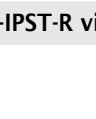
	DynaMesh®-IPST visible	Funnel length: 4.0 cm	
		ø 02 cm x 15 cm x 15 cm (L4)	IP082415F1
		Funnel length: 2.5 cm	
		ø 02 cm x 15 cm x 15 cm	IP080215F1
		ø 03 cm x 16 cm x 16 cm	IP080316F1

	DynaMesh®-IPST-D visible	Funnel length: 4.0 cm	
		ø 02 cm x 30 cm x 30 cm (L4) left	IP082431F1
		ø 02 cm x 30 cm x 30 cm (L4) right	IP082432F1
		Important: Side specificity (left-sided/right-sided stoma)	
		FX = X unit(s)/box (e.g. F3 = 3 unit(s)/box)	

Repair of Parastomal Hernia

With DynaMesh®-IPST-R and DynaMesh®-IPST-R visible, a tight sheathing of the intestine is achieved by a suitable overlap of the mesh flaps with non-absorbable closure.

	DynaMesh®-IPST-R	Funnel length: 3.5 cm	
		ø 03 cm x 16 cm x 16 cm (L3.5)	IP103316F1

	DynaMesh®-IPST-R visible	Funnel length: 3.5 cm	
		ø 03 cm x 16 cm x 16 cm (L3.5)	IP113316F1
		FX = X unit(s)/box (e.g. F3 = 3 unit(s)/box)	

DynaMesh®-IPST - Animation:
Parastomal Hernia Repair with Chimney Technique
<https://de.dyna-mesh.com/Vi087xx>



DynaMesh®-IPST-R - Animation:
Parastomal Hernia Repair
<https://de.dyna-mesh.com/Vi113xx>



Distributed by:

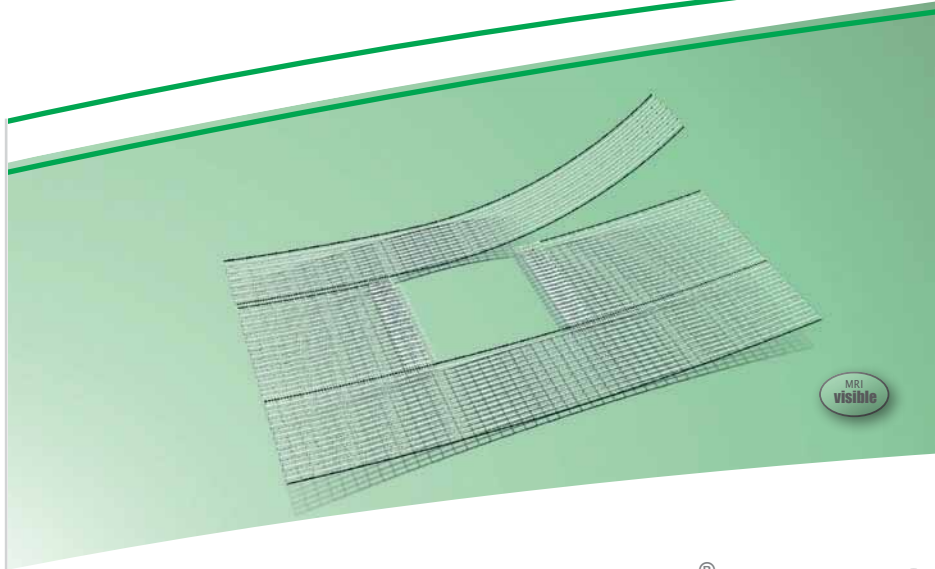
Some of our devices may not be available in your country. Please contact your local distributor for more information.

www.dyna-mesh.com

hergestellt durch / manufactured by /
fabriqué par / fabricado por / fabbricato da
FEG Textiltechnik
Forschungs- und Entwicklungsgesellschaft mbH
Prager Ring 70
52070 Aachen, Germany



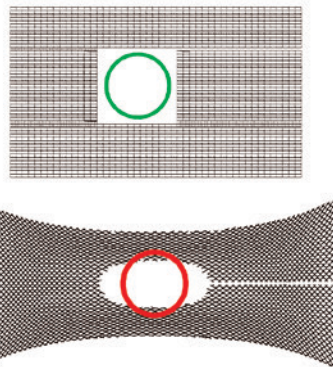
Distributed by:



DynaMesh®-HIATUS

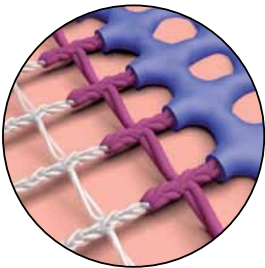
Defined Stability

Constriction of the mesh in the region of the hiatus may reduce the distance between the mesh implant and the oesophagus. DynaMesh®-HIATUS implants have rectangular pores and defined stability with a maximum elongation of only 8% [TR50, TR51].



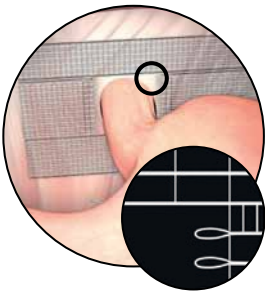
Effective Porosity

All DynaMesh®-HIATUS implants have an effective porosity [TR51]. DynaMesh®-HIATUS implants are made of PVDF. PVDF has good biocompatibility, reducing the foreign body reaction compared to other materials such as polypropylene [1A, 2A, 4A, 68A, 100A, TR1]. DynaMesh®-HIATUS implants show little mesh shrinkage [51].



Smooth Warp-Knitted Selvedges

All DynaMesh®-HIATUS implants have smooth warp-knitted selvedges.



DynaMesh®-HIATUS

Use and Properties

Product	DynaMesh®-HIATUS
Surgical Treatment	Hiatal Hernias
Surgical Approach	Minimally Invasive / Open
Surgical Technique	Cruroplasty with mesh reinforcement
Fixation	Suture* / Tissue Adhesives / Tacks*
Defined Stability	● [TR50]
Smooth Warp-Knitted Selvedges	●
Visible Technology	●
Materials	- Polyvinylidene fluoride (PVDF) (CAS 24937-79-9) > 99% (w/w) - Triiron tetraoxide (CAS 1317-61-9) < 1% (w/w)
Polymer (Monofilament)	PVDF
Biocompatibility	● [TR1]
Ageing Resistance	● [2A, 5 ^{VIT} , 27A, 52 ^{VIT} , 93A, 101]
Effective Porosity	● High effective porosity reduces inflammation and the risk of excessive scar formation. [103p, TR51]
Klinge's Mesh Classification	Class 1a [102 ^P , TR51]

* Traumatic fixation may only be used if injuries to the pericardium, aorta or vena cava can be ruled out with total certainty.

Product Range

DynaMesh®-HIATUS	07 cm x 12 cm	PV610712F1/F3
	08 cm x 13 cm	PV610813F1/F3
	FX = X unit(s)/box (e.g. F3 = 3 unit(s)/box)	

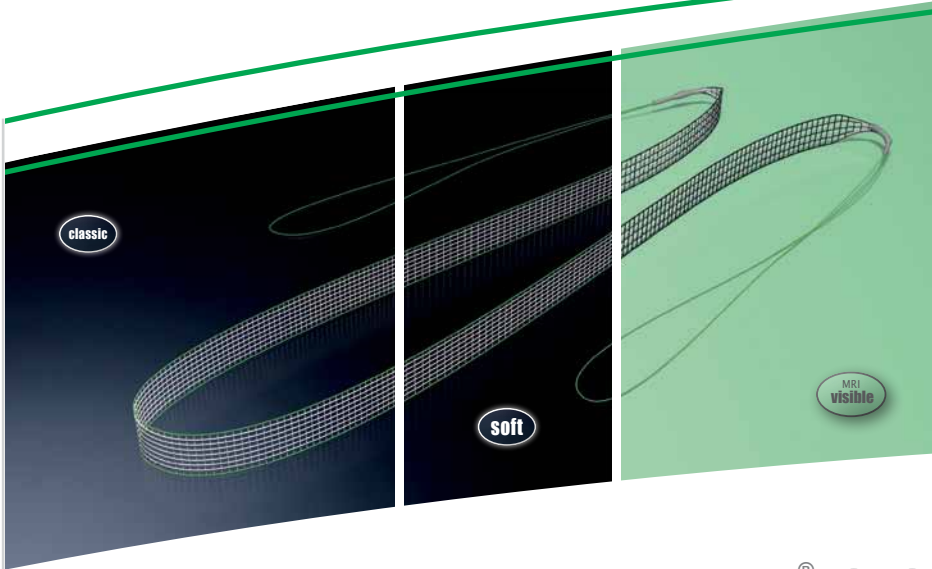
When selecting and cutting the device, ensure that the mesh implant adequately overlaps the hernial orifice on all sides.

DynaMesh®-HIATUS - Animation: Surgical Treatment of Hiatal Hernia in Laparoscopic Technique
<https://de.dyna-mesh.com/Vi014xx>



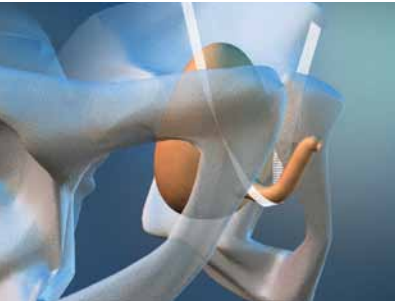
● Applies to all product sizes
[#] Reference "#" (see "References")
[TR#] Internal test report (see "Internal test report references")
Limitations "A" animal trial, "B" bench test, "VIT" in-vitro trial,
"P" published results based on the analysis of human mesh explants,
"PB" published results mainly based on bench tests

Distributed by:



DynaMesh®-SIS

Retropubic Tape Position
(Inside-Out)



Transobturator Tape Position
(Outside-In or Inside-Out)



DynaMesh®-SIS, DynaMesh®-SIS soft and DynaMesh®-SIS visible implants are intended to be used as a midurethral sling for the surgical treatment of stress urinary incontinence caused by a hypermobile urethra and/or intrinsic sphincter deficiency. The devices permanently reinforce the soft tissue of the pelvic floor.

DynaMesh®-SIS, DynaMesh®-SIS soft and DynaMesh®-SIS visible are positioned using the inside-out technique in case of a retropubic tape position, and using the outside-in or inside-out technique in case of a transobturator tape position.

The devices have a thread at the ends of the tape that is attached to the surgical instrument.

Several reusable instruments are available separately to position the device:



DynaMesh®-ISR01



DynaMesh®-IST01



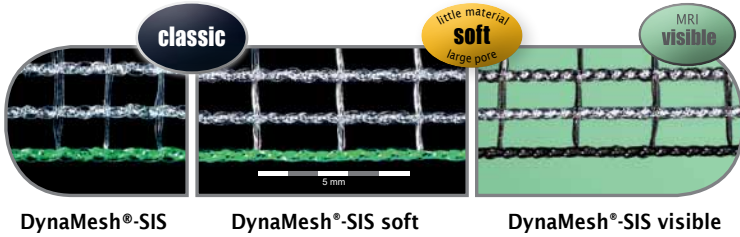
DynaMesh®-IVT01

DynaMesh®-ISR01:
Instrument for transvaginal access for retropubic positioning of DynaMesh®-SIS, DynaMesh®-SIS soft and DynaMesh®-SIS visible using the inside-out technique.

DynaMesh®-IST01/ DynaMesh®-IST02/ DynaMesh®-IST03:
Instrument set consisting of two instruments for transvaginal access for transobturator positioning of DynaMesh®-SIS, DynaMesh®-SIS soft and DynaMesh®-SIS visible using the inside-out or outside-in technique.

DynaMesh®-IVT01:
Instrument for transvaginal access for transobturator positioning of DynaMesh®-SIS, DynaMesh®-SIS soft and DynaMesh®-SIS visible using the outside-in technique.

DynaMesh®-SIS



Use and Properties

Product	DynaMesh®-SIS (1)	DynaMesh®-SIS soft (2)	DynaMesh®-SIS visible (3)
Surgical Treatment	Stress Urinary Incontinence (SUI)		
Surgical Approach	Transvaginal		
Surgical Technique	TVT - Retropubic - Inside-Out / TOT - Transobturator - Inside-Out/Outside-In		
Fixation	None		
Smooth Warp-Knitted Selvedges		●	
Shape Stability		● [TR12, TR13]	
Defined Elasticity		● [TR10]	
Visible Technology	●	●	●
Materials	- Polyvinylidene fluoride (PVDF) (CAS 24937-79-9) > 99% (w/w) (1) - (3) - Phthalocyanine green (CAS 1328-53-6) < 1% (w/w) (1) (2) - Triiron tetraoxide (CAS 1317-61-9) < 1% (w/w) (3)		
Polymer (Monofilament)	PVDF		
Biocompatibility		● [TR1]	
Ageing Resistance		● [2A, 5VIT, 27A, 52VIT, 93A, 101]	
Effective Porosity		●	
	High effective porosity reduces inflammation and the risk of excessive scar formation. [103P, TR11]		
Klinge's Mesh Classification	Class 1a [102P, TR11]		

Product Range

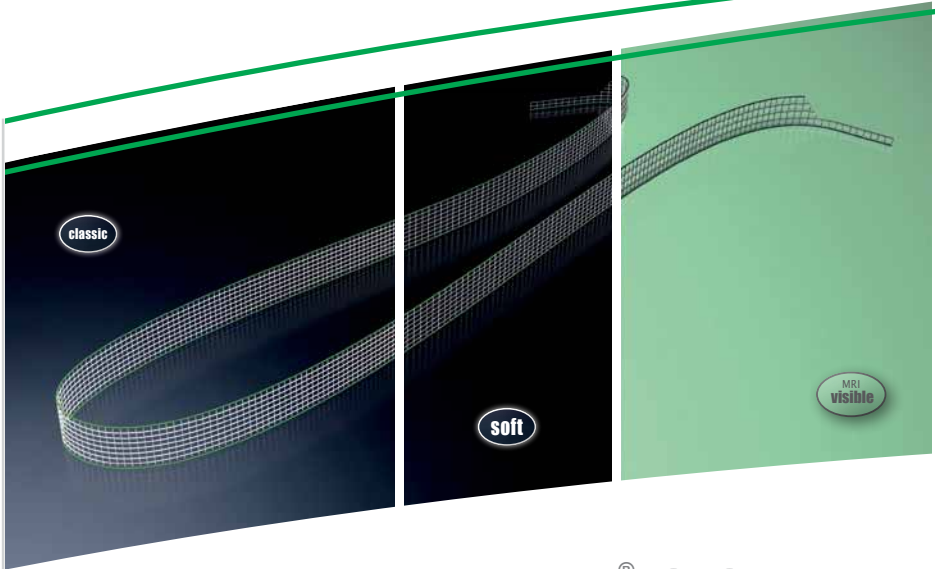
DynaMesh®-SIS	01 cm x 50 cm	PV211056F1/F3
DynaMesh®-SIS soft	01 cm x 50 cm	PV411056F1/F3
DynaMesh®-SIS visible	01 cm x 50 cm	PV471056F1/F3
FX = X unit(s)/box (e.g. F3 = 3 unit(s)/box)		

DynaMesh®-SIS - Animation: Surgical Treatment of Stress Urinary Incontinence - SUI - TVT 8/4
<https://de.dyna-mesh.com/Vi040xx>



● Applicable
● Does not apply
[#] Reference "#" (see "References")
[TR#] Internal test report (see "internal test report references")
Limitations "A" animal trial, "B" bench test, "VIT" in-vitro trial,
"P" published results based on the analysis of human mesh explants,
"PB" published results mainly based on bench tests

Distributed by:



DynaMesh®-SIS direct, DynaMesh®-SIS direct soft and DynaMesh®-SIS direct visible implants are intended to be used as a midurethral sling for the surgical treatment of stress urinary incontinence caused by a hypermobile urethra and/or intrinsic sphincter deficiency. The devices permanently reinforce the soft tissue of the pelvic floor.

DynaMesh®-SIS direct

Transobturator Tape Position: Outside-In



DynaMesh®-SIS direct, DynaMesh®-SIS direct soft and DynaMesh®-SIS direct visible are positioned using the outside-in technique in a transobturator tape position.

Several reusable instruments are available separately to position the device:



DynaMesh®-IST01



DynaMesh®-IVT01

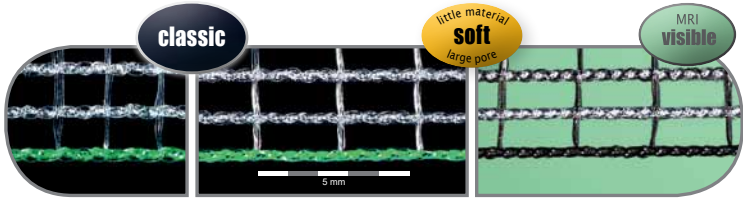
DynaMesh®-IST01/ DynaMesh®-IST02/ DynaMesh®-IST03:
Instrument set consisting of two instruments for **transvaginal access for transobturator positioning** of DynaMesh®-SIS direct, DynaMesh®-SIS direct soft and DynaMesh®-SIS direct visible using the **outside-in** technique.

DynaMesh®-IVT01:
Instrument for **transvaginal access for transobturator positioning** of DynaMesh®-SIS direct, DynaMesh®-SIS direct soft and DynaMesh®-SIS direct visible using the **outside-in** technique.

DynaMesh®-SIS direct - Animation:
SUI Treatment - Transobturator (out/in) - TOT
<https://de.dyna-mesh.com/Vi045en>

DynaMesh®-SIS direct - Animation:
SUI Treatment - Transobturator (out/in) - TOT 8/4
<https://de.dyna-mesh.com/Vi021xx>

DynaMesh®-SIS direct



DynaMesh®-SIS direct DynaMesh®-SIS direct soft DynaMesh®-SIS direct visible

Use and Properties

Product	DynaMesh®-SIS direct (1)	DynaMesh®-SIS direct soft (2)	DynaMesh®-SIS direct visible (3)
Surgical Treatment	Stress Urinary Incontinence (SUI)		
Surgical Approach	Transvaginal		
Surgical Technique	TOT - Transobturator - Outside-In		
Fixation	None		
Smooth Warp-Knitted Selvedges		●	
Shape Stability		● [TR12, TR13]	
Defined Elasticity		● [TR10]	
Visible Technology	●	●	●
Materials	- Polyvinylidene fluoride (PVDF) (CAS 24937-79-9) > 99% (w/w) (1)-(3) - Phthalocyanine green (CAS 1328-53-6) < 1% (w/w) (1) (2) - Triiron tetraoxide (CAS 1317-61-9) < 1% (w/w) (3)		
Polymer (Monofilament)	PVDF		
Biocompatibility		● [TR1]	
Ageing Resistance		● [2A, 5 ^{VIT} , 27A, 52 ^{VIT} , 93A, 101]	
Effective Porosity		●	
	High effective porosity reduces inflammation and the risk of excessive scar formation. [103 ^P , TR11]		
Klinge's Mesh Classification	Class 1a [102 ^P , TR11]		

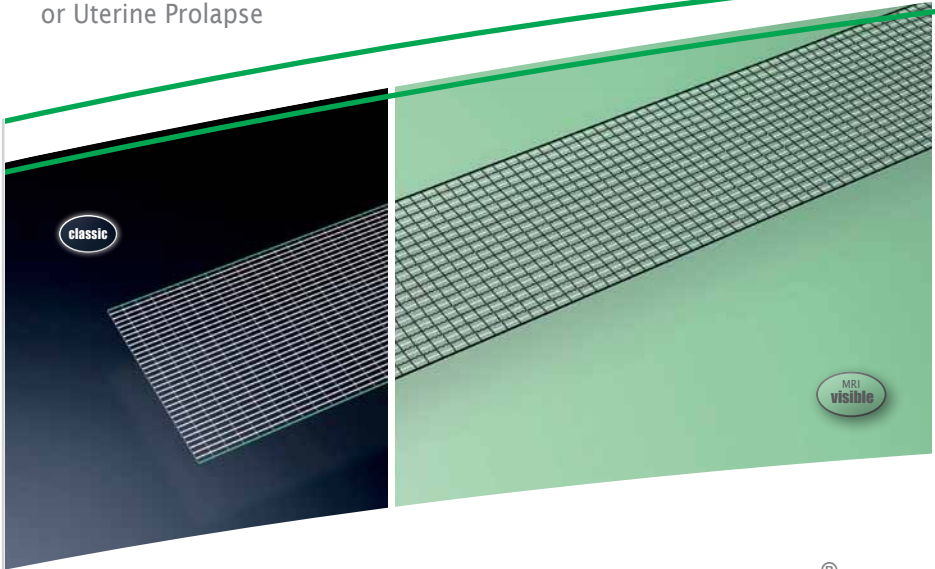
Product Range

DynaMesh®-SIS direct	01 cm x 50 cm	PV211050F1/F3
DynaMesh®-SIS direct soft	01 cm x 50 cm	PV411050F1/F3
DynaMesh®-SIS direct visible	01 cm x 50 cm	PV471050F1/F3

FX = X unit(s)/box (e.g. F3 = 3 unit(s)/box)

● Applicable
● Does not apply
[#] Reference "#" (see "References")
[TR#] Internal test report (see "internal test report references")
Limitations "A" animal trial, "B" bench test, "VIT" in-vitro trial,
"P" published results based on the analysis of human mesh explants,
"PB" published results mainly based on bench tests

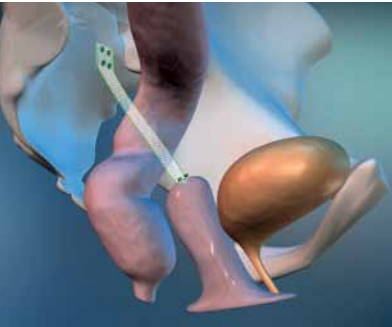
Distributed by:



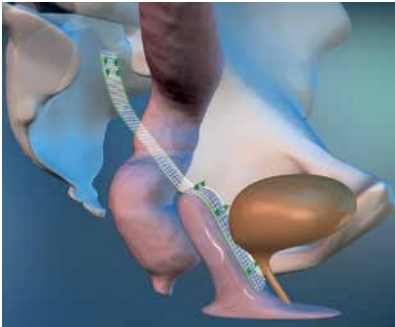
DynaMesh®-PR soft and DynaMesh®-PR visible implants are intended to be used as bridging material and reinforce the soft tissue of the vaginal walls as part of surgical treatment for apical pelvic organ prolapse.

DynaMesh®-PR

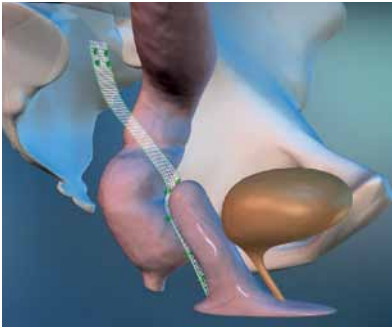
The target patient group are fully-grown female patients with apical pelvic organ prolapse (of the uterus, vaginal or cervical stump).



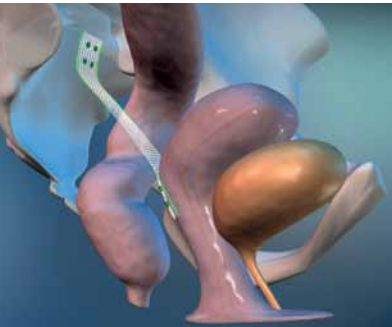
- Colpo-/cervicosacropexy
- unilateral
 - fixation on vaginal/cervical stump



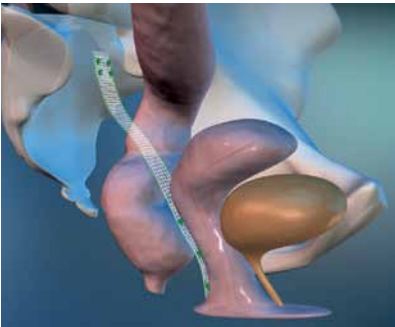
- Colpo-/cervicosacropexy
- unilateral
 - fixation on vaginal/cervical stump and anterior mesh plasty for concomitant cystocele



- Colpo-/cervicosacropexy
- unilateral
 - fixation on vaginal/cervical stump and posterior mesh plasty for concomitant rectocele



- Hysterosacropexy
- unilateral
 - posterior cervical fixation



- Hysterosacropexy
- unilateral
 - posterior cervical fixation and posterior mesh plasty for concomitant rectocele

Use and Properties

Product	DynaMesh®-PR soft ⁽¹⁾	DynaMesh®-PR visible ⁽²⁾
Surgical Treatment	Apical Pelvic Organ Prolapse (Uterus / Vaginal Stump / Cervical Stump)	
Surgical Approach	Minimally Invasive / Open	
Surgical Technique	Sacropexy	
Fixation	- Anterior longitudinal ligament: non-absorbable suture or tacks - Vaginal stump or cervix: interrupted non-absorbable suture (preferably)	
Smooth Warp-Knitted Selvedges	●	
Defined Elasticity	● [TR110]	
Visible Technology	●	●
Materials	- Polyvinylidene fluoride (PVDF) (CAS 24937-79-9) > 99% (w/w) ⁽¹⁾ ⁽²⁾ - Phthalocyanine green (CAS 1328-53-6) < 1% (w/w) ⁽¹⁾ - Triiron tetraoxide (CAS 1317-61-9) < 1% (w/w) ⁽²⁾	
Polymer (Monofilament)	PVDF	
Biocompatibility	● [TR1]	
Ageing Resistance	● [2A, 5 ^{VIT} , 27A, 52 ^{VIT} , 93A, 101]	
Effective Porosity	● High effective porosity reduces inflammation and the risk of excessive scar formation. [103 ^P , TR111]	
Klinge's Mesh Classification	Class 1a [102 ^P , TR111]	

Product Range

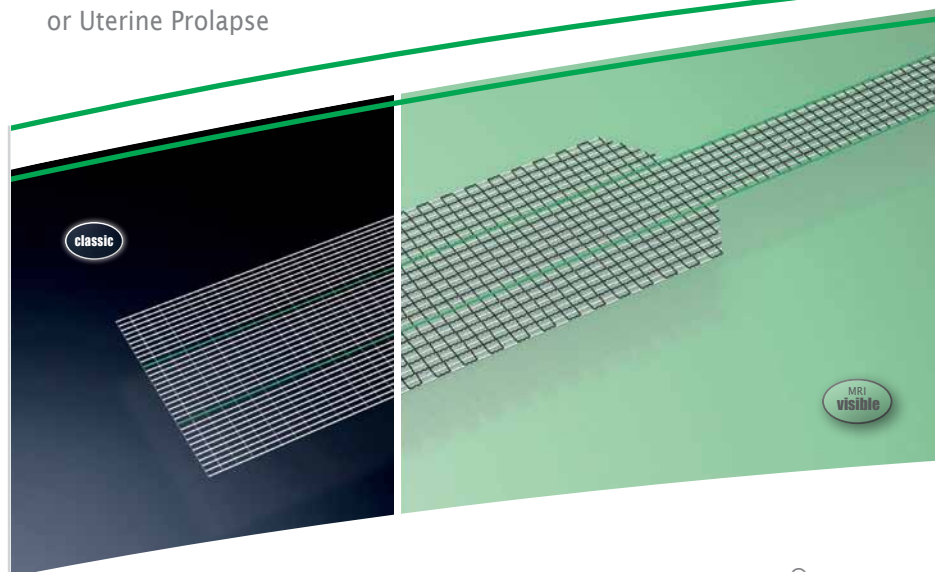
DynaMesh®-PR soft	04 cm x 23 cm	PV500423F1/F3/F5
DynaMesh®-PR visible	04 cm x 23 cm	PV700423F1
FX = X unit(s)/box (e.g. F3 = 3 unit(s)/box)		

DynaMesh®-PR - Animation:
Colposacropexy
<https://de.dyna-mesh.com/Vi086xx>



● Applies to all product sizes
● Does not apply
[#] Reference "#" (see "References")
[TR#] Internal test report (see "internal test report references")
Limitations "A" animal trial, "B" bench test, "VIT" in-vitro trial,
"P" published results based on the analysis of human mesh explants,
"PB" published results mainly based on bench tests

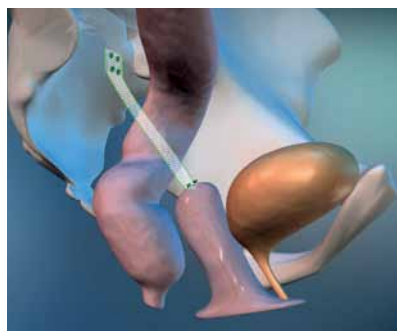
Distributed by:



DynaMesh®-PRR soft and DynaMesh®-PRR visible implants are intended to be used as bridging material and reinforce the soft tissue of the vaginal walls as part of surgical treatment for apical pelvic organ prolapse.

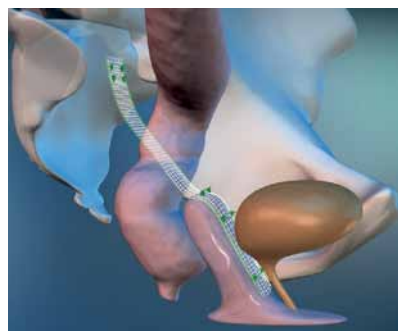
DynaMesh®-PRR

The target patient group are fully-grown female patients with apical pelvic organ prolapse (of the uterus, vaginal or cervical stump).



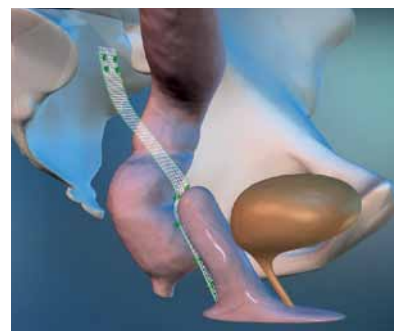
Colpo-/cervicosacropexy

- unilateral
- fixation on vaginal/cervical stump



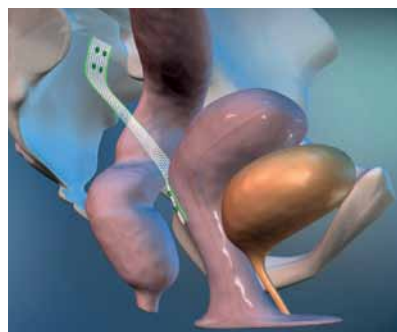
Colpo-/cervicosacropexy

- unilateral
- fixation on vaginal/cervical stump and anterior mesh plasty for concomitant cystocele



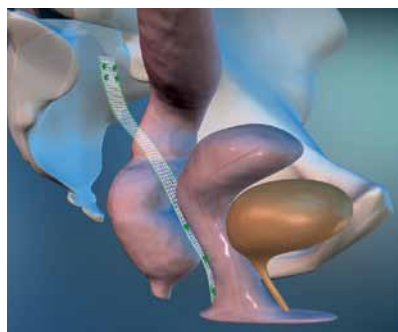
Colpo-/cervicosacropexy

- unilateral
- fixation on vaginal/cervical stump and posterior mesh plasty for concomitant rectocele



Hysterosacropexy

- unilateral
- posterior cervical fixation



Hysterosacropexy

- unilateral
- posterior cervical fixation and posterior mesh plasty for concomitant rectocele



Use and Properties

Product	DynaMesh®-PRR soft ⁽¹⁾	DynaMesh®-PRR visible ⁽²⁾
Surgical Treatment	Apical Pelvic Organ Prolapse (Uterus / Vaginal Stump / Cervical Stump)	
Surgical Approach	Minimally Invasive / Open	
Surgical Technique	Sacropexy	
Fixation	- Anterior longitudinal ligament: non-absorbable suture or tacks - Vaginal stump or cervix: interrupted non-absorbable suture (preferably)	
Smooth Warp-Knitted Selvedges	●	
Defined Elasticity	● [TR110]	
Visible Technology	●	●
Materials	- Polyvinylidene fluoride (PVDF) (CAS 24937-79-9) > 99% (w/w) ^{(1) (2)} - Phthalocyanine green (CAS 1328-53-6) < 1% (w/w) ^{(1) (2)} - Triiron tetraoxide (CAS 1317-61-9) < 1% (w/w) ⁽²⁾	
Polymer (Monofilament)	PVDF	
Biocompatibility	● [TR1]	
Ageing Resistance	● [2A, 5VIT, 27A, 52VIT, 93A, 101]	
Effective Porosity	● High effective porosity reduces inflammation and the risk of excessive scar formation. [103P, TR111]	
Klinge's Mesh Classification	Class 1a [102P, TR111]	

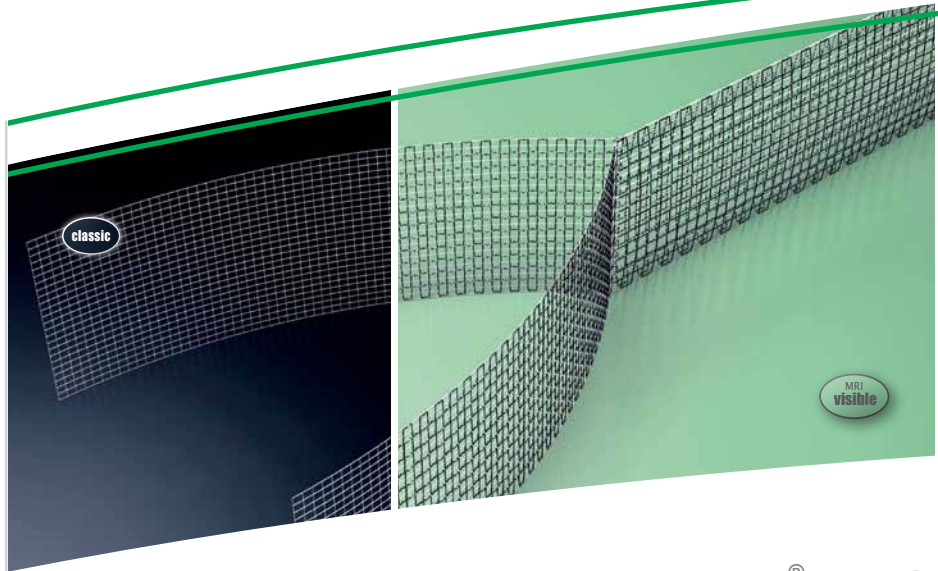
Product Range

DynaMesh®-PRR soft	02/04 cm x 23 cm	PV360423F1/F3
DynaMesh®-PRR visible	02/04 cm x 23 cm	PV760423F1
FX = X unit(s)/box (e.g. F3 = 3 unit(s)/box)		

DynaMesh®-PRR - Animation: Colposacropexy https://de.dyna-mesh.com/Vi083xx	
DynaMesh®-PRR - Animation: Hysterosacropexy https://de.dyna-mesh.com/Vi062xx	

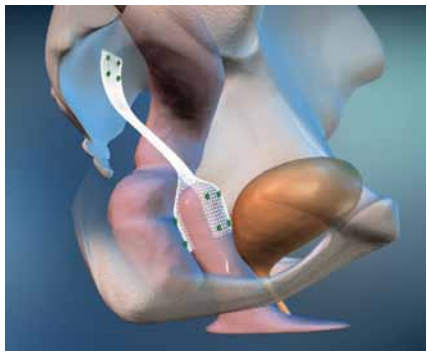
- | | |
|-------------|--|
| ● | Applies to all product sizes |
| ● | Does not apply |
| [#] | Reference “#” (see “References”) |
| [TR#] | Internal test report (see “internal test report references”) |
| Limitations | “A” animal trial, “B” bench test, “VIT” in-vitro trial,
“P” published results based on the analysis of human mesh explants,
“PB” published results mainly based on bench tests |

Distributed by:



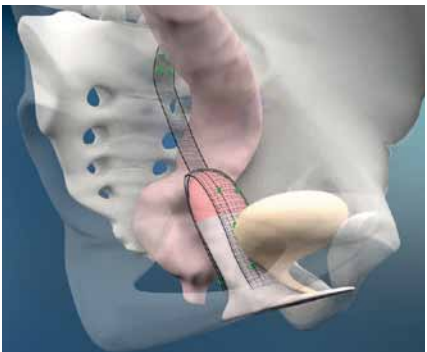
DynaMesh®-PRS

DynaMesh®-PRS soft and DynaMesh®-PRS visible implants are intended to be used as bridging material and reinforce the soft tissue of the vaginal walls as part of surgical treatment for apical pelvic organ prolapse.



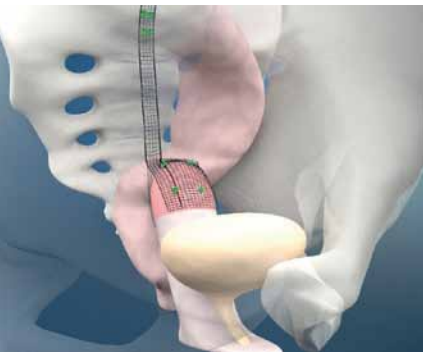
Colpo-/cervicosacropexy

- unilateral



Colpo-/cervicosacropexy

- unilateral
- anterior/posterior mesh plasty (for concomitant cystocele/rectocele)



Colpo-/cervicosacropexy

- unilateral

DynaMesh®-PRS - Animation:
Colposacropexy
<https://de.dyna-mesh.com/Vi046xx>



DynaMesh®-PRS - Animation:
Colposacropexy
<https://de.dyna-mesh.com/Vi048xx>



DynaMesh® MRI - Animation:
MRI Reconstruction with DynaMesh®-PRS visible
<https://de.dyna-mesh.com/Vi067xx>



DynaMesh®-PRS

Use and Properties

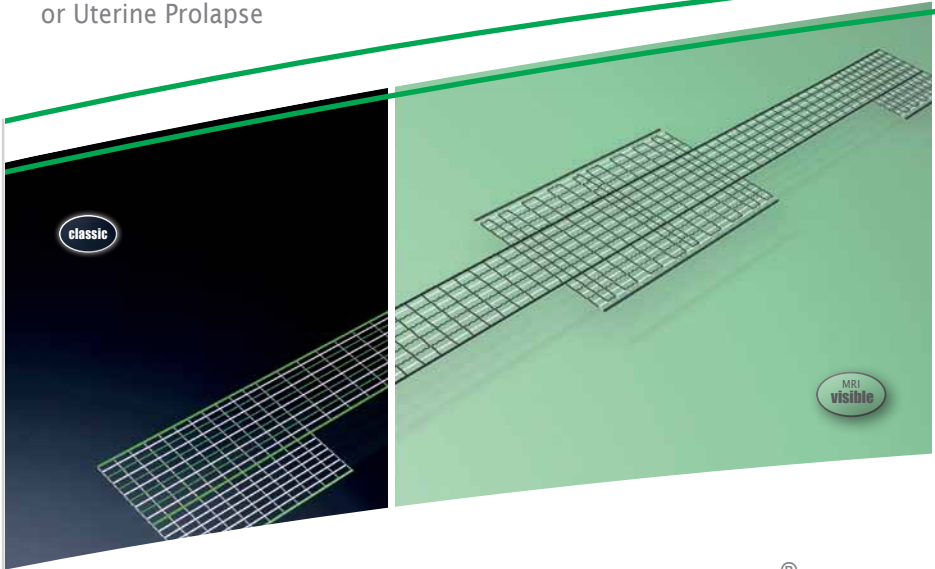
Product	DynaMesh®-PRS soft ⁽¹⁾	DynaMesh®-PRS visible ⁽²⁾
Surgical Treatment	Apical Pelvic Organ Prolapse (Vaginal Stump / Cervical Stump)	
Surgical Approach	Minimally Invasive / Open	
Surgical Technique	Sacropexy	
Fixation	- Anterior longitudinal ligament: non-absorbable suture or tacks - Vaginal/cervical stump and vaginal walls: interrupted non-absorbable suture	
Smooth Warp-Knitted Selvedges		●
Defined Elasticity		● [TR130]
Visible Technology	●	●
Materials	- Polyvinylidene fluoride (PVDF) (CAS 24937-79-9) > 99% (w/w) ⁽¹⁾ ⁽²⁾ - Triiron tetraoxide (CAS 1317-61-9) < 1% (w/w) ⁽²⁾	
Polymer (Monofilament)	PVDF	
Biocompatibility	● [TR1]	
Ageing Resistance	● [2 ^A , 5 ^{VIT} , 27 ^A , 52 ^{VIT} , 93 ^A , 101]	
Effective Porosity	● High effective porosity reduces inflammation and the risk of excessive scar formation. [103 ^P , TR132]	
Klinge's Mesh Classification	Class 1a [102 ^P , TR132]	

Product Range

DynaMesh®-PRS soft	02 cm x 16 cm	PV350216F1
	03 cm x 23 cm	PV350323F1
DynaMesh®-PRS visible	03 cm x 23 cm	PV750323F1/F10
	3.3 cm x 24 cm	PV750424F1/F10
	04 cm x 20 cm	PV750420F1/F10
DynaMesh®-PRS soft	05 cm x 27 cm	PV350527F1
	FX = X unit(s)/box (e.g. F3 = 3 unit(s)/box)	

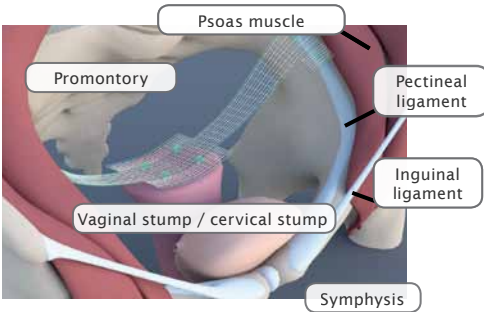
● Applies to all product sizes
● Does not apply
[#] Reference "#" (see "References")
[TR#] Internal test report (see "internal test report references")
Limitations "A" animal trial, "B" bench test, "VIT" in-vitro trial,
"P" published results based on the analysis of human mesh explants,
"PB" published results mainly based on bench tests

Distributed by:

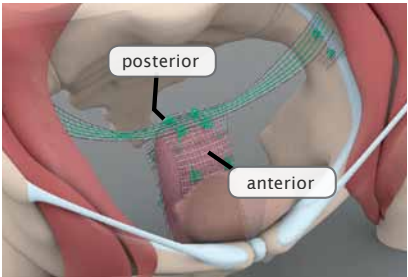


DynaMesh®-PRP soft and DynaMesh®-PRP visible implants are intended to be used as bridging material and reinforce soft tissue as part of surgical treatment for apical pelvic organ prolapse.

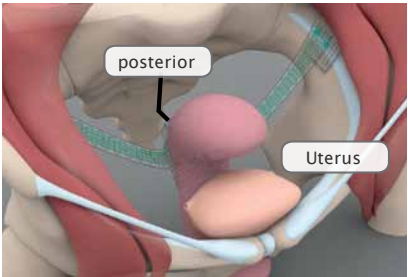
DynaMesh®-PRP



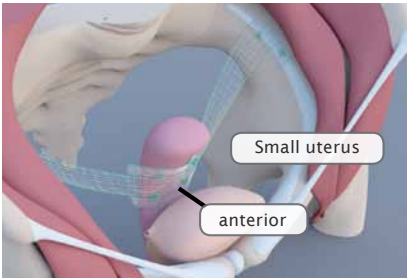
- Pectopexy after vaginal/cervical stump prolapse:
- Two implant sizes are available in the following dimensions
DynaMesh®-PRP soft / visible 03 cm x 15 cm and
DynaMesh®-PRP visible 03 cm x 18 cm.
 - With greatly shortened vaginas, e.g., following a radical hysterectomy,
DynaMesh®-PRP visible 03 cm x 18 cm can be used.



- Pectopexy after vaginal/cervical stump prolapse with concomitant cystocele and/or rectocele:
- Additional stabilisation of the anterior and/or posterior vaginal wall can be achieved with **DynaMesh®-PRP visible 17 cm x 15 cm**.



- Pectopexy after uterine prolapse with uterine preservation:
- With a normal sized uterus, **DynaMesh®-PRP visible 03 cm x 18 cm** can be used and fixed in place on the posterior cervix.



- Pectopexy after uterine prolapse with uterine preservation:
- With smaller uteri (below 100 g), anterior fixation of **DynaMesh®-PRP soft / visible 03 cm x 15 cm** can be selected as an alternative.

Use and Properties

Product	DynaMesh®-PRP soft ⁽¹⁾ / visible ⁽²⁾ 03 cm x 15 cm	DynaMesh®-PRP visible 03 cm x 18 cm ⁽³⁾	DynaMesh®-PRP visible 17 cm x 15 cm ⁽⁴⁾
Surgical Treatment	Apical Pelvic Organ Prolapse (Uterus / Vaginal Stump / Cervical Stump)		
Surgical Approach	Minimally Invasive / Open		
Surgical Technique	Pectopexy		Pectopexy with reinforcement of the vaginal walls in case of concomitant cystocele and/or rectocele.
Fixation	- Pectineal ligament: non-absorbable suture - Vaginal stump: absorbable monofilament suture - Cervix: non-absorbable suture (size 0)		
Smooth Warp-Knitted Selvedges	●		
Defined Elasticity	● [TR120]		
Visible Technology	● ⁽¹⁾ ● ^{(2) - (4)}		
Materials	- Polyvinylidene fluoride (PVDF) (CAS 24937-79-9) > 99% (w/w) ^{(1) - (4)} - Phthalocyanine green (CAS 1328-53-6) < 1% (w/w) ^{(1) - (4)} - Triiron tetraoxide (CAS 1317-61-9) < 1% (w/w) ^{(2) - (4)}		
Polymer (Monofilament)	PVDF		
Biocompatibility	● [TR1]		
Ageing Resistance	● [2 ^A , 5 ^{VIT} , 27 ^A , 52 ^{VIT} , 93 ^A , 101]		
Effective Porosity	● High effective porosity reduces inflammation and the risk of excessive scar formation. [103 ^P , TR121]		
Klinge's Mesh Classification	Class 1a [102 ^P , TR121]		

● Applies to all product sizes
● Does not apply
[#] Reference "#" (see "References")
[TR#] Internal test report (see "internal test report references")
Limitations "A" animal trial, "B" bench test, "VIT" in-vitro trial,
"P" published results based on the analysis of human mesh explants,
"PB" published results mainly based on bench tests

Distributed by:

Pectopexy
Bilateral Fixation on the Pectineal Ligament

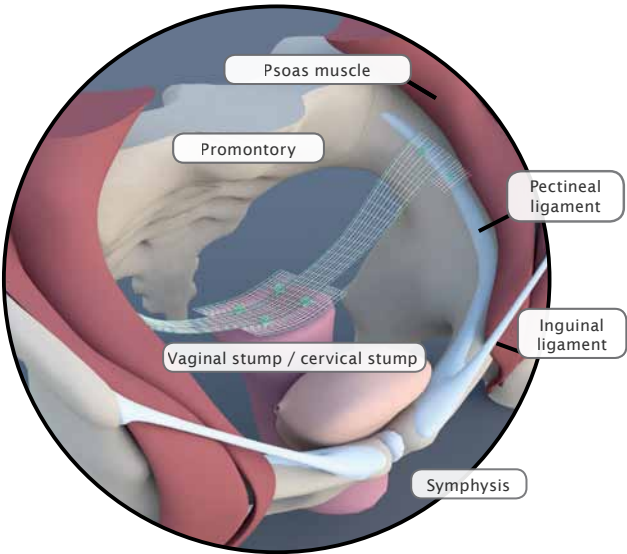


Fig.: Apical mesh repair following hysterectomy with
DynaMesh®-PRP soft / visible (03 cm x 15 cm)

Product Range

DynaMesh®-PRP soft	⁽¹⁾ 03 cm x 15 cm	PV540315F1/F3
DynaMesh®-PRP visible	⁽²⁾ 03 cm x 15 cm	PV780315F1
DynaMesh®-PRP visible	⁽³⁾ 03 cm x 18 cm	PV780318F1/F3
DynaMesh®-PRP visible	⁽⁴⁾ 17 cm x 15 cm	PV781715F1/F3

FX = X unit(s)/box (e.g. F3 = 3 unit(s)/box)

DynaMesh®-PRP - Animation: Pectopexy https://de.dyna-mesh.com/Vi042xx	
DynaMesh®-PRP - Animation: Hysteropectopexy - Anterior Fixation https://de.dyna-mesh.com/Vi061xx	
DynaMesh®-PRP - Animation: Hysteropectopexy - Posterior Fixation https://de.dyna-mesh.com/Vi053xx	
DynaMesh®-PRP - Animation: Pectopexy with Anterior & Posterior Mesh Repair https://de.dyna-mesh.com/Vi054xx	
DynaMesh® MRI - Animation: MRI Reconstruction with DynaMesh®-PRP visible https://de.dyna-mesh.com/Vi069xx	

Distributed by:

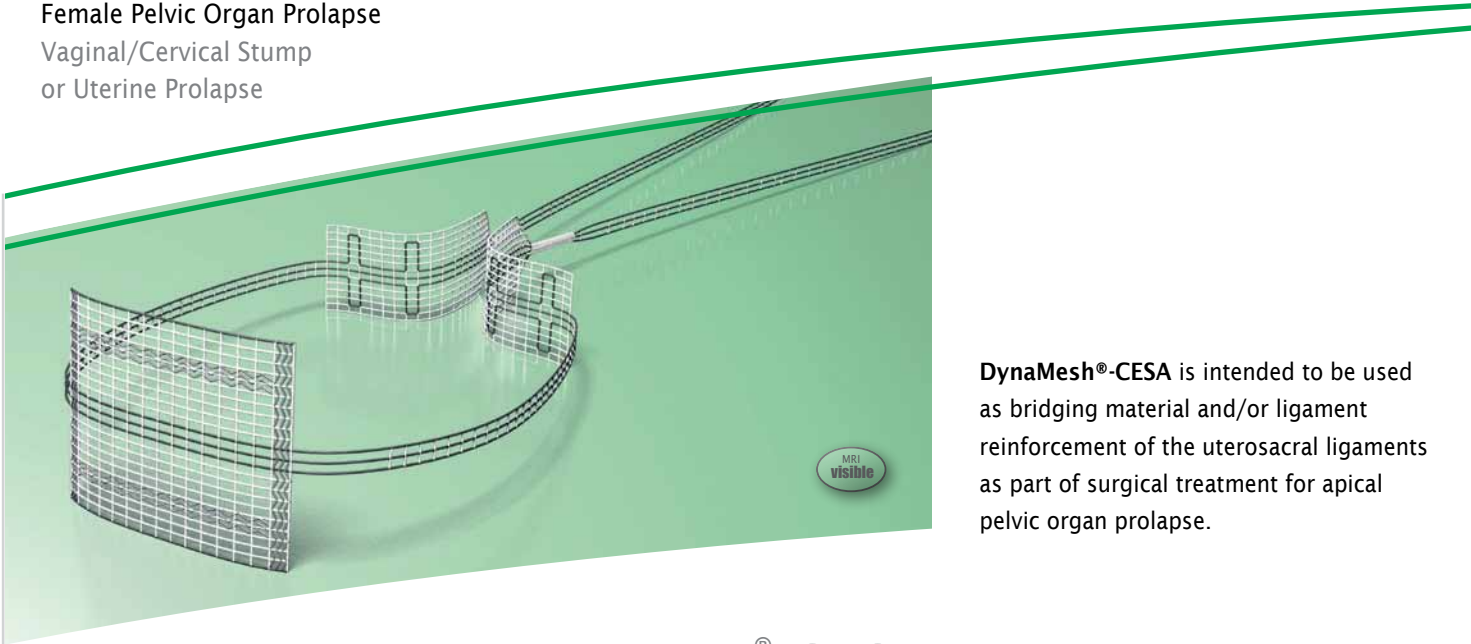
Some of our devices may not be available in your country. Please contact your local distributor for more information.

www.dyna-mesh.com

hergestellt durch / manufactured by /
fabriqué par / fabricado por / fabbricato da
FEG Textiltechnik
Forschungs- und Entwicklungsgesellschaft mbH
Prager Ring 70
52070 Aachen, Germany

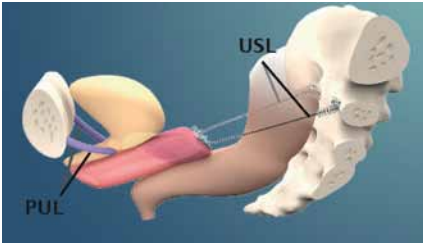


Distributed by:



DynaMesh®-CESA is intended to be used as bridging material and/or ligament reinforcement of the uterosacral ligaments as part of surgical treatment for apical pelvic organ prolapse.

DynaMesh®-CESA



DynaMesh®-CESA

The device is used for bilateral sacrospinous. In bilateral sacrospinous, both of the uterosacral ligaments are reconstructed along their original course.



DynaMesh®-IVT01



DynaMesh®-IVT02

The following reusable instruments for retroperitoneal insertion are available separately for positioning:
DynaMesh®-IVT01 and **DynaMesh®-IVT02**

DynaMesh®-CESA - Animation: Cervicosacropey - Bilateral Fixation - Level Promontory
<https://de.dyna-mesh.com/Vi094xx>

DynaMesh®-CESA - Animation: Cervicosacropey - Bilateral Fixation - Level S2
<https://de.dyna-mesh.com/Vi084xx>

Use and Properties

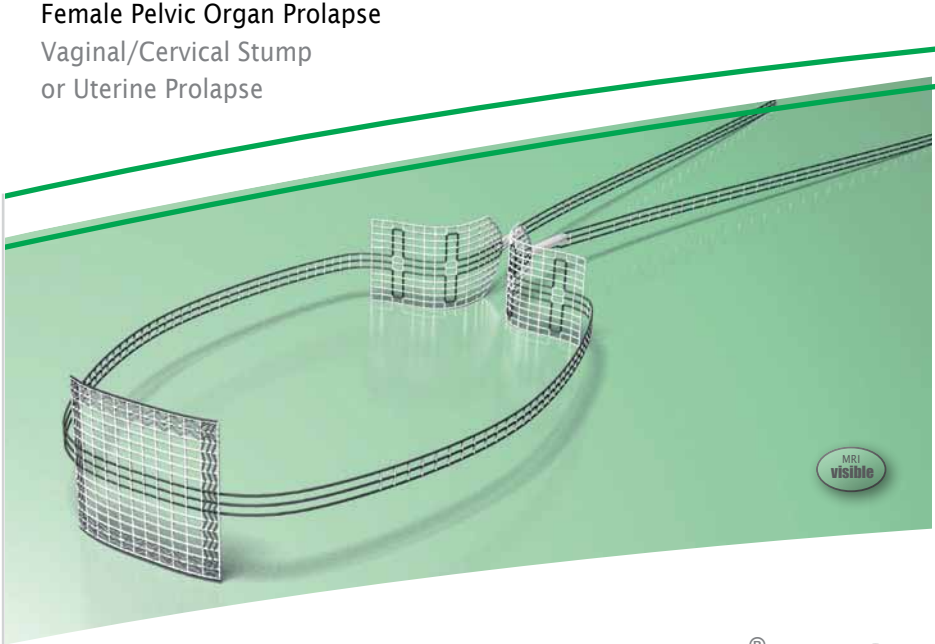
Product	DynaMesh®-CESA
Surgical Treatment	Apical Pelvic Organ Prolapse (Uterus / Vaginal Stump / Cervical Stump)
Surgical Approach	Minimally Invasive / Open
Surgical Technique	Bilateral Sacropey (reconstruction of both uterosacral ligaments)
Fixation	- Anterior longitudinal ligament: non-absorbable suture or tacks - Vaginal stump or cervix: non-absorbable suture
Smooth Warp-Knitted Selvesges	●
Defined Elasticity	● [TR100]
Visible Technology	●
Materials	- Polyvinylidene fluoride (PVDF) (CAS 24937-79-9) > 99% (w/w) - Triiron tetraoxide (CAS 1317-61-9) < 1% (w/w)
Polymer (Monofilament)	PVDF
Biocompatibility	● [TR1]
Ageing Resistance	● [2 ^A , 5 ^{VIT} , 27 ^A , 52 ^{VIT} , 93 ^A , 101]
Effective Porosity	● High effective porosity reduces inflammation and the risk of excessive scar formation. [103 ^P , TR101]
Klinge's Mesh Classification	Class 1a [102 ^P , TR101]

Product Range

DynaMesh®-CESA	03 cm x 04 cm	PV740404F1/F3
FX = X unit(s)/box (e.g. F3 = 3 unit(s)/box)		

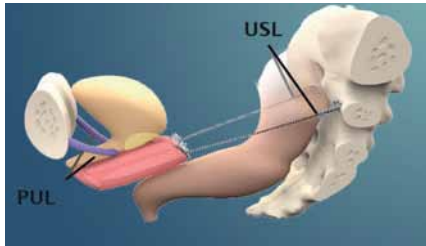
● Applicable
[#] Reference "#" (see "References")
[TR#] Internal test report (see "internal test report references")
Limitations "A" animal trial, "B" bench test, "VIT" in-vitro trial,
"P" published results based on the analysis of human mesh explants,
"PB" published results mainly based on bench tests

Distributed by:



DynaMesh®-VASA is intended to be used as bridging material and/or ligament reinforcement of the uterosacral ligaments as part of surgical treatment for apical pelvic organ prolapse.

DynaMesh®-VASA



DynaMesh®-VASA

The device is used for bilateral sacropexy. In bilateral sacropexy, both of the uterosacral ligaments are reconstructed along their original course.



DynaMesh®-IVT01



DynaMesh®-IVT02

The following reusable instruments for retroperitoneal insertion are available separately for positioning:

DynaMesh®-IVT01 and DynaMesh®-IVT02

Use and Properties

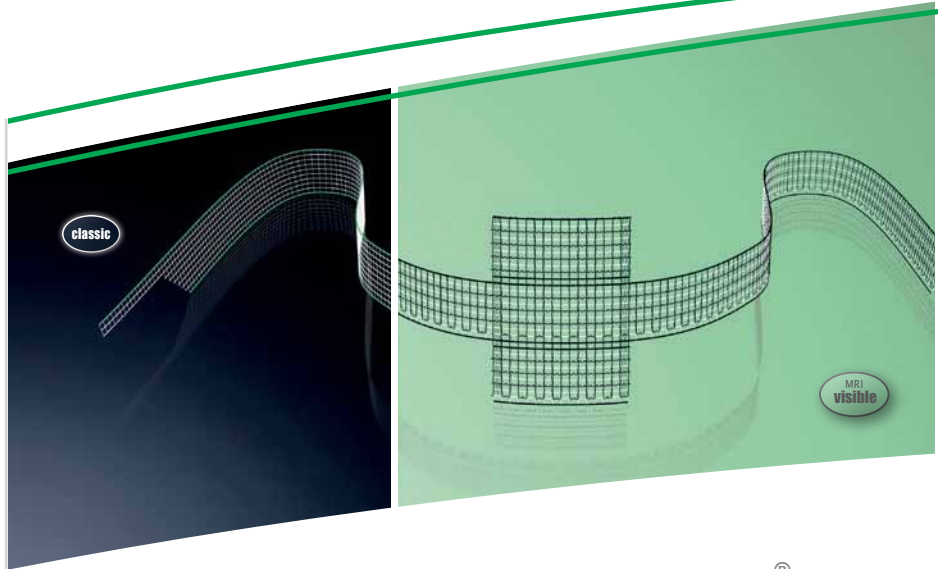
Product	DynaMesh®-VASA
Surgical Treatment	Apical Pelvic Organ Prolapse (Uterus / Vaginal Stump / Cervical Stump)
Surgical Approach	Minimally Invasive / Open
Surgical Technique	Bilateral Sacropexy (reconstruction of both uterosacral ligaments)
Fixation	- Anterior longitudinal ligament: non-absorbable suture or tacks - Vaginal stump or cervix: non-absorbable suture
Smooth Warp-Knitted Selvedges	●
Defined Elasticity	● [TR100]
Visible Technology	●
Materials	- Polyvinylidene fluoride (PVDF) (CAS 24937-79-9) > 99% (w/w) - Triiron tetraoxide (CAS 1317-61-9) < 1% (w/w)
Polymer (Monofilament)	PVDF
Biocompatibility	● [TR1]
Ageing Resistance	● [2 ^A , 5 ^{VIT} , 27 ^A , 52 ^{VIT} , 93 ^A , 101]
Effective Porosity	● High effective porosity reduces inflammation and the risk of excessive scar formation. [103 ^P , TR101]
Klinge's Mesh Classification	Class 1a [102 ^P , TR101]

Product Range

DynaMesh®-VASA	02 cm x 03 cm	PV740203F1/F3
FX = X unit(s)/box (e.g. F3 = 3 unit(s)/box)		

● Applicable
[#] Reference "#" (see "References")
[TR#] Internal test report (see "internal test report references")
Limitations "A" animal trial, "B" bench test, "VIT" in-vitro trial,
"P" published results based on the analysis of human mesh explants,
"PB" published results mainly based on bench tests

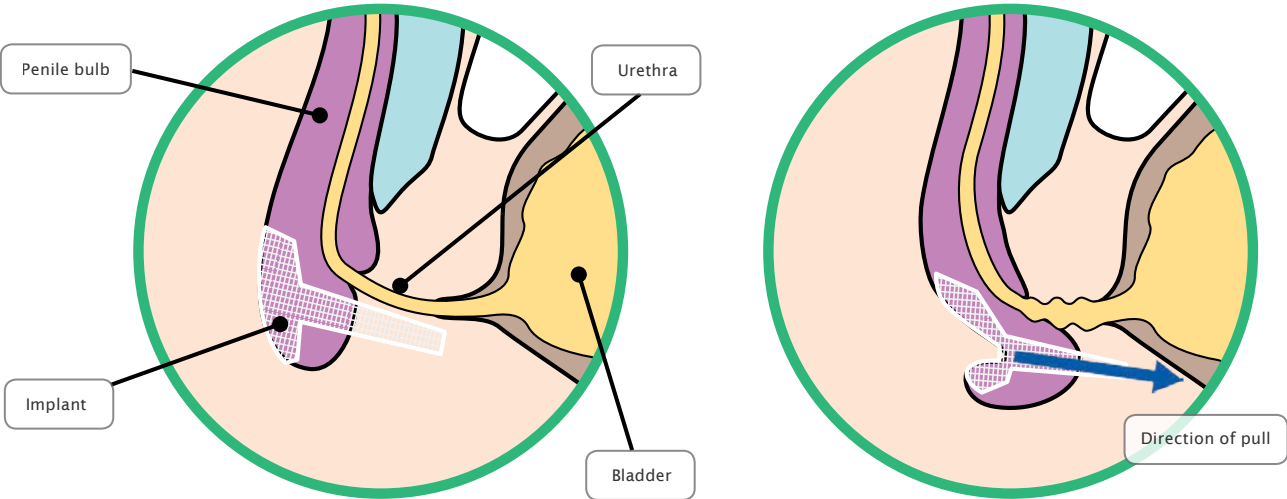
Distributed by:



DynaMesh®-PRM and DynaMesh®-PRM visible implants are intended to be used as a suburethral sling for the surgical treatment of male stress urinary incontinence. The devices permanently reinforce the soft tissue of the pelvic floor and permanently relocates the posterior urethra.

DynaMesh®-PRM

The device must be inserted via an appropriate perineal approach and is positioned suburethrally under tension, in a transobturator tape position using the outside-in technique.



DynaMesh®-IST02
Diameter: 7 cm



DynaMesh®-IST03
Diameter: 5 cm

DynaMesh®-IST02 / DynaMesh®-IST03:
Instrument set consisting of two instruments for transobturator positioning using the outside-in technique.

DynaMesh®-PRM

Use and Properties

Product	DynaMesh®-PRM ⁽¹⁾	DynaMesh®-PRM visible ⁽²⁾
Surgical Treatment	Male Stress Urinary Incontinence (SUI)	
Surgical Approach	Perineal	
Surgical Technique	Male Sling TOT - Transobturator - Outside-In	
Fixation	Suture / Synthetic Adhesive	
Smooth Warp-Knitted Selvedges	●	
Visible Technology	●	●
Materials	- Polyvinylidene fluoride (PVDF) (CAS 24937-79-9) > 99% (w/w) ^{(1) (2)} - Phthalocyanine green (CAS 1328-53-6) < 1% (w/w) ⁽¹⁾ - Triiron tetraoxide (CAS 1317-61-9) < 1% (w/w) ⁽²⁾	
Polymer (Monofilament)	PVDF	
Biocompatibility	● [TR1]	
Ageing Resistance	● [2A, 5 ^{VIT} , 27A, 52 ^{VIT} , 93A, 101]	

Product Range

DynaMesh®-PRM	04 cm x 03 cm	PV330453F1
DynaMesh®-PRM visible	04 cm x 03 cm	PV730453F1
FX = X unit(s)/box (e.g. F3 = 3 unit(s)/box)		

DynaMesh®-PRM visible - Animation:
Surgical Treatment of Male Stress Urinary Incontinence
https://de.dyna-mesh.com/VA_I1_PRM1_PRMv_001_en



● Applicable
● Does not apply
[#] Reference "#" (see "References")
[TR#] Internal test report (see "internal test report references")
Limitations "A" animal trial, "B" bench test, "VIT" in-vitro trial,
"P" published results based on the analysis of human mesh explants,
"PB" published results mainly based on bench tests

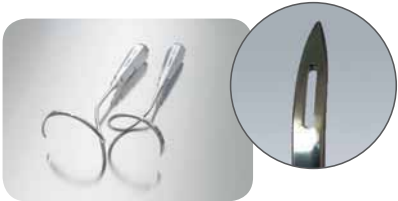
Distributed by:

Reusable Instruments

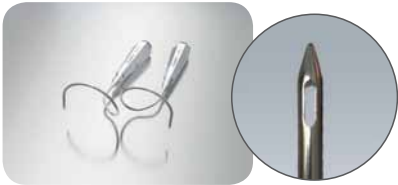
Manufactured from surgical steel (resterilisable)

For transobturator application

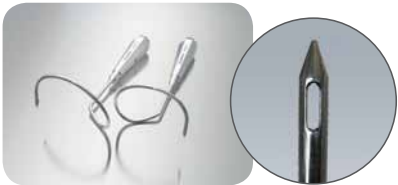
DynaMesh®-IST03
Surgical instrument
Diameter: 5 cm
IST03F1
BX = 1 set (l+r)



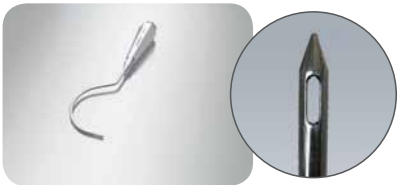
DynaMesh®-IST01
Surgical instrument
Diameter: 6 cm
IST01F1
BX = 1 set (l+r)



DynaMesh®-IST02
Surgical instrument
Diameter: 7 cm
IST02F1
BX = 1 set (l+r)

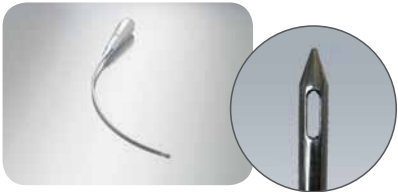


DynaMesh®-IVT01
Surgical instrument
IVT01F1
BX = 1 piece



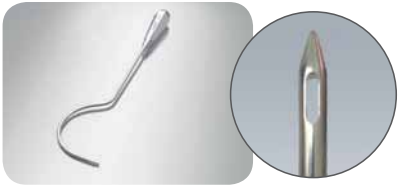
For retropubic application

DynaMesh®-ISR01
Surgical instrument
ISR01F1
BX = 1 piece



For laparotomical application
of DynaMesh®-CESA/-VASA

DynaMesh®-IVT02
Surgical instrument
IVT02F1
BX = 1 piece



Distributed by:

Some of our devices may not be available in your country. Please contact your local distributor for more information.

www.dyna-mesh.com

hergestellt durch / manufactured by /
fabriqué par / fabricado por / fabbricato da
FEG Textiltechnik
Forschungs- und Entwicklungsgesellschaft mbH
Prager Ring 70
52070 Aachen, Germany



Distributed by:

Literature References

1. Klinge U, Klosterhalfen B, Öttinger AP, et al (2002)
PVDF as a new polymer for the construction of surgical meshes.
Biomaterials 23:3487–3493. [https://doi.org/10.1016/S0142-9612\(02\)00070-4](https://doi.org/10.1016/S0142-9612(02)00070-4)

2. Klink CD, Junge K, Binnebösel M, et al (2011)
Comparison of long-term biocompatibility of PVDF and PP meshes.
J Invest Surg 24:292–299. <https://doi.org/10.3109/08941939.2011.589883>

3. Gerullis H, Georgas E, Eimer C, et al (2011)
Evaluation of Biocompatibility of Alloplastic Materials: Development of a Tissue Culture In Vitro Test System.
Surg Technol Int 21:21–27

4. Gerullis H, Klosterhalfen B, Borós M, et al (2013)
IDEAL in meshes for prolapse, urinary incontinence, and hernia repair.
Surg Innov 20:502–508. <https://doi.org/10.1177/1553350612472987>

5. Laroche G, Marois Y, Schwarz E, et al (1995)
Polyvinylidene Fluoride Monofilament Sutures: Can They Be Used Safely for Long-Term Anastomoses in the Thoracic Aorta?
Artificial Organs 19:1190–1199. <https://doi.org/10.1111/j.1525-1594.1995.tb02282.x>

6. Mühl T, Binnebösel M, Klinge U, Goedderz T (2008)
New objective measurement to characterize the porosity of textile implants.
Journal of Biomedical Materials Research Part B: Applied Biomaterials 84B:176–183. <https://doi.org/10.1002/jbm.b.30859>

7. Hansen NL, Barabasch A, Distelmaier M, et al (2013)
First in-human magnetic resonance visualization of surgical mesh implants for inguinal hernia treatment.
Investigative radiology 48:770–778. <https://doi.org/10.1097/RLI.0b013e31829806ce>

8. Klinge U, Klosterhalfen B (2012)
Modified classification of surgical meshes for hernia repair based on the analyses of 1,000 explanted meshes.
Hernia 16:251–258. <https://doi.org/10.1007/s10029-012-0913-6>

9. Berger D, Bientzle M (2007)
Laparoscopic Repair of Parastomal Hernias: A Single Surgeon's Experience in 66 Patients.
Diseases of the Colon & Rectum 50:1668–1673. <https://doi.org/10.1007/s10350-007-9028-z>

10. Berger D, Bientzle M (2009)
Polyvinylidene fluoride: a suitable mesh material for laparoscopic incisional and parastomal hernia repair! A prospective, observational study with 344 patients.
Hernia 13:167–172. <https://doi.org/10.1007/s10029-008-0435-4>

11. Junge K, Binnebösel M, Rosch R, et al (2009)
Adhesion formation of a polyvinylidenfluoride/polypropylene mesh for intra-abdominal placement in a rodent animal model.
Surgical Endoscopy 23:327–333. <https://doi.org/10.1007/s00464-008-9923-y>

12. Berger D (2010)
Laparoskopische Reparation der parastomalen Hernie.
Chirurg 81:988–992. <https://doi.org/10.1007/s00104-010-1933-3>

CA_CF_M_M_001_en 001a _240813_d

Literature References

13. Berger D (2010)
Laparoskopische IPOM-Technik.
Der Chirurg 81:211–215. <https://doi.org/10.1007/s00104-009-1819-4>

14. Berger D, Bientzle M (2006)
Principles of laparoscopic repair of ventral hernias.
European Surgery 38:393–398. <https://doi.org/10.1007/s10353-006-0284-2>

15. Berger D (2008)
Prevention of parastomal hernias by prophylactic use of a specially designed intraperitoneal onlay mesh (Dynamesh IPST®).
Hernia 12:243–246. <https://doi.org/10.1007/s10029-007-0318-0>

16. Junge K, Binnebösel M, Kauffmann C, et al (2011)
Damage to the spermatic cord by the Lichtenstein and TAPP procedures in a pig model.
Surg Endosc 25:146–152. <https://doi.org/10.1007/s00464-010-1148-1>

17. Godazandeh G, Mortazian M (2012)
Laparoscopic Repair of Morgagni Hernia Using Polyvinylidene Fluoride (PVDF) Mesh.
Middle East J Dig Dis 4:232–235

18. Ladurner R, Drosse I, Bürklein D, et al (2011)
Cyanoacrylate Glue for Intra-abdominal Mesh Fixation of Polypropylene-Polyvinylidene Fluoride Meshes in a Rabbit Model.
Journal of Surgical Research 167:e157–e162. <https://doi.org/10.1016/j.jss.2009.11.710>

19. Roberts DG (2012)
Laparoscopic Intraperitoneal Onlay Repair of Abdominal Incisional and Ventral Hernias with Polyvinylidene Fluoride-Coated Polypropylene Mesh; A Retrospective Study with Short to Medium Term Results.
Science Journal of Clinical Medicine 1:10. <https://doi.org/10.11648/j.sjcm.20120101.13>

20. Göretzlehner U, Müllen A (2007)
PVDF als Implantat-Werkstoff in der Urogynäkologie.
BIOMaterialien 8 (S1):2

21. Klinge U, Binneboesel M, Kuschel S, Schuessler B (2007)
Demands and properties of alloplastic implants for the treatment of stress urinary incontinence.
Expert Review of Medical Devices 4:349–359. <https://doi.org/10.1586/17434440.4.3.349>

22. Noé KG, Spüntrup C, Anapolski M (2013)
Laparoscopic pectopexy: a randomised comparative clinical trial of standard laparoscopic sacral colpo-cervicopexy to the new laparoscopic pectopexy. Short-term postoperative results.
Archives of Gynecology and Obstetrics 287:275–280. <https://doi.org/10.1007/s00404-012-2536-7>

23. Jaeger W, Mirenska O, Brügge S (2012)
Surgical Treatment of Mixed and Urge Urinary Incontinence in Women.
Gynecologic and Obstetric Investigation 74:157–164. <https://doi.org/10.1159/000339972>

24. Chui LB, Ng WT, Sze YS, et al (2010)
Prospective, randomized, controlled trial comparing lightweight versus heavyweight mesh in chronic pain incidence after TEP repair of bilateral inguinal hernia.
Surgical Endoscopy 24:2735–2738. <https://doi.org/10.1007/s00464-010-1036-8>

CA_CF_M_M_002_en 001a _240813_d

Literature References

25. Klosterhalfen B, Junge K, Klinge U (2005)
The lightweight and large porous mesh concept for hernia repair.
Expert Review Medical Devices 2:103–117. <https://doi.org/10.1586/17434440.2.1.103>

26. Otto J, Kaldenhoff E, Kirschner-Hermanns R, et al (2014)
Elongation of textile pelvic floor implants under load is related to complete loss of effective porosity, thereby favoring incorporation in scar plates: Elongation of textile pelvic floor implants.
Journal of Biomedical Materials Research Part A 102:1079–1084. <https://doi.org/10.1002/jbm.a.34767>

27. Mary C, Marois Y, King MW, et al (1998)
Comparison of the in vivo behavior of polyvinylidene fluoride and polypropylene sutures used in vascular surgery.
ASAIO Journal 44:199–206. <https://doi.org/10.1097/00002480-199805000-00015>

28. Klinge U, Klosterhalfen B
Comparison of Bacterial Adherences

29. Kuehnert N, Kraemer NA, Otto J, et al (2012)
In vivo MRI visualization of mesh shrinkage using surgical implants loaded with superparamagnetic iron oxides.
Surg Endosc 26:1468–1475. <https://doi.org/10.1007/s00464-011-2057-7>

30. Lynen Jansen P, Klinge U, Anurov M, et al (2004)
Surgical Mesh as a Scaffold for Tissue Regeneration in the Esophagus.
European Surgical Research 36:104–111. <https://doi.org/10.1159/000076650>

31. Naumann G, Albrich S, Skala C, et al (2012)
Single-Incision Slings (SIS) - a New Option for the Surgical Treatment of Female Stress Urinary Incontinence.
Geburtshilfe und Frauenheilkunde 72:125–131. <https://doi.org/10.1055/s-0031-1298275>

32. Noé K-G, Schiermeier S, Alkatout I, Anapolski M (2015)
Laparoscopic Pectopexy: A Prospective, Randomized, Comparative Clinical Trial of Standard Laparoscopic Sacral Colpocervicopexy with the New Laparoscopic Pectopexy—Postoperative Results and Intermediate-Term Follow-Up in a Pilot Study.
Journal of Endourology 29:210–215. <https://doi.org/10.1089/end.2014.0413>

33. Jager W, Ludwig S (2016)
Does the Patients Age have an Influence on the Outcome of CESA (Cervico-Sacropepy) and VASA (Vagino-Sacropepy) for the Treatment of Urinary Incontinence in Women?
Journal of Gerontology & Geriatric Research 05: <https://doi.org/10.4172/2167-7182.1000277>

34. Rajshekhar S, Mukhopadhyay S, Morris E (2016)
Early safety and efficacy outcomes of a novel technique of sacrocolpopexy for the treatment of apical prolapse.
International Journal of Gynecology & Obstetrics 135:182–186. <https://doi.org/10.1016/j.ijgo.2016.05.007>

35. Ludwig S, Stumm M, Mallmann P, Jager W (2016)
Surgical Replacement of the Uterosacral- and Pubourethral-Ligaments as Treatment for Urgency Urinary Incontinence.
Austin Journal of Women's Health 3(1):1019

36. Joukhadar R, Meyberg-Solomayer G, Hamza A, et al (2015)
A Novel Operative Procedure for Pelvic Organ Prolapse Utilizing a MRI-Visible Mesh Implant: Safety and Outcome of Modified Laparoscopic Bilateral Sacropepy.
BioMed Research International 2015:1–9. <https://doi.org/10.1155/2015/860784>

Literature References

37. Jaeger W, Ludwig S, Stumm M, Mallmann P (2015)
Standardized bilateral mesh supported uterosacral ligament replacement – cervico-sacropepy (CESA) and vagino-sacropepy (VASA) operations for female genital prolapse.
Pelviperrineology 35:17–21

38. Kaldenhoff E, Klinge U, Klosterhalfen B, et al (2013)
Von der Prolaps- zur Problempatientin: Schenken wir der Qualität von Netzimplantaten genügend Aufmerksamkeit?
Der Gynäkologe 46:469–476. <https://doi.org/10.1007/s00129-012-3124-4>

39. Ludwig S, Stumm M, Mallmann P, Jager W (2016)
TOT 8/4: A Way to Standardize the Surgical Procedure of a Transobturator Tape.
BioMed Research International 2016:1–4. <https://doi.org/10.1155/2016/4941304>

40. Najjari L, Hennemann J, Kirschner-Hermanns R, et al (2014)
Visualization of Polypropylene and Polyvinylidene Fluoride Slings in Perineal Ultrasound and Correlation with Clinical Outcome.
BioMed Research International 2014:1–8. <https://doi.org/10.1155/2014/181035>

41. Sabadell J, Larrain F, Gracia-Perez-Bonfils A, et al (2016)
Comparative study of polyvinylidene fluoride and polypropylene suburethral slings in the treatment of female stress urinary incontinence: PVDF/polypropylene in suburethral slings.
Journal of Obstetrics and Gynaecology Research 42:291–296. <https://doi.org/10.1111/jog.12899>

42. Balsamo R, Illiano E, Zucchi A, et al (2018)
Sacrocolpopexy with polyvinylidene fluoride mesh for pelvic organ prolapse: Mid term comparative outcomes with polypropylene mesh.
European Journal of Obstetrics & Gynecology and Reproductive Biology 220:74–78. <https://doi.org/10.1016/j.ejogrb.2017.11.018>

43. Barski D, Arndt C, Gerullis H, et al (2017)
Transvaginal PVDF-mesh for cystocele repair: A cohort study.
International Journal of Surgery 39:249–254. <https://doi.org/10.1016/j.ijso.2017.02.006>

44. Ludwig S, Stumm M (2016)
Surgical Treatment of Urgency Urinary Incontinence, OAB (Wet), Mixed Urinary Incontinence, and Total Incontinence by Cervicosacropepy or Vaginosacropepy.
Gynecology & Obstetrics 6: <https://doi.org/10.4172/2161-0932.1000404>

45. Kale A, Biler A, Terzi H, et al (2017)
Laparoscopic pectopexy: initial experience of single center with a new technique for apical prolapse surgery.
International braz j urol 43:903–909. <https://doi.org/10.1590/s1677-5538.ijju.2017.0070>

46. Iva U, Nikhil S, Geertje C, et al (2017)
In vivo documentation of shape and position changes of MRI-visible mesh placed in rectovaginal septum.
Journal of the Mechanical Behavior of Biomedical Materials 75:379–389. <https://doi.org/10.1016/j.jmbbm.2017.08.005>

47. Sindhvani N, Liaquat Z, Urbankova I, et al (2015)
Immediate postoperative changes in synthetic meshes - In vivo measurements.
J Mech Behav Biomed Mater 55:228–235. <https://doi.org/10.1016/j.jmbbm.2015.10.015>

Literature References

48. Sindhwani N, Feola A, De Keyzer F, et al (2015)
Three-dimensional analysis of implanted magnetic-resonance-visible meshes.
International Urogynecology Journal 26:1459–1465. <https://doi.org/10.1007/s00192-015-2681-1>
49. Gräf CM, Kupec T, Stickeler E, et al (2016)
Tomographic Ultrasound Imaging to Control the Placement of Tension-Free Transobturator Tape in Female Urinary Stress Incontinence.
BioMed Research International 2016:1–6. <https://doi.org/10.1155/2016/6495858>
50. Roman S, Urbánková I, Callewaert G, et al (2016)
Evaluating Alternative Materials for the Treatment of Stress Urinary Incontinence and Pelvic Organ Prolapse: A Comparison of the In Vivo Response to Meshes Implanted in Rabbits.
Journal of Urology 196:261–269. <https://doi.org/10.1016/j.juro.2016.02.067>
51. Köhler G, Pallwein-Prettner L, Lechner M, et al (2015)
First human magnetic resonance visualisation of prosthetics for laparoscopic large hiatal hernia repair.
Hernia 19:975–982. <https://doi.org/10.1007/s10029-015-1398-x>
52. Silva RA, Silva PA, Carvalho ME (2007)
Degradation Studies of Some Polymeric Biomaterials: Polypropylene (PP) and Polyvinylidene Difluoride (PVDF).
MSF 539–543:573–576. <https://doi.org/10.4028/www.scientific.net/MSF.539-543.573>
53. Zhu L-M, Schuster P, Klinge U (2015)
Mesh implants: An overview of crucial mesh parameters.
World Journal of Gastrointestinal Surgery 7:226. <https://doi.org/10.4240/wjgs.v7.i10.226>
54. Muysoms F, Beckers R, Kyle-Leinhase I (2018)
Prospective cohort study on mesh shrinkage measured with MRI after laparoscopic ventral hernia repair with an intraperitoneal iron oxide-loaded PVDF mesh.
Surg Endosc 32:2822–2830. <https://doi.org/10.1007/s00464-017-5987-x>
55. Kohler A, Lavanchy JL, Lenoir U, et al (2019)
Effectiveness of Prophylactic Intraperitoneal Mesh Implantation for Prevention of Incisional Hernia in Patients Undergoing Open Abdominal Surgery: A Randomized Clinical Trial.
JAMA Surg 154:109. <https://doi.org/10.1001/jamasurg.2018.4221>
56. Köhler G, Pallwein-Prettner L, Koch OO, et al (2015)
Magnetic resonance-visible meshes for laparoscopic ventral hernia repair.
JSLs 19:e2014.00175. <https://doi.org/10.4293/JSLs.2014.00175>
57. Jan H, Ghai V, Thakar R (2018)
Simplified Laparoscopic Sacrohysteropexy.
J Minim Invasive Gynecol. <https://doi.org/10.1016/j.jmig.2018.01.014>
58. Verbo A, Pafundi P, Manno A, et al (2016)
Polyvinylidene Fluoride Mesh (PVDF, DynaMesh®-IPOM) in The Laparoscopic Treatment of Incisional Hernia: A Prospective Comparative Trial versus Gore® ePTFE DUALMESH® Plus.
Surg Technol Int 28:147–151

CA_CF_M_M_005_en_001a_240813_d

Literature References

59. Conde-Muñoz R, Díez J-L, Martínez A, et al (2017)
Preventing parastomal hernias with systematic intraperitoneal specifically designed mesh.
BMC Surg 17:41. <https://doi.org/10.1186/s12893-017-0237-7>
60. Fischer I, Wundsam H, Mitteregger M, Köhler G (2017)
Parastomal Hernia Repair with a 3D Funnel Intraperitoneal Mesh Device and Same-Sided Stoma Relocation: Results of 56 Cases.
World J Surg 41:3212–3217. <https://doi.org/10.1007/s00268-017-4130-4>
61. Köhler G, Hofmann A, Lechner M, et al (2016)
Prevention of parastomal hernias with 3D funnel meshes in intraperitoneal onlay position by placement during initial stoma formation.
Hernia 20:151–159. <https://doi.org/10.1007/s10029-015-1380-7>
62. Köhler G, Wundsam H, Pallwein-Prettner L, et al (2015)
Magnetic resonance visible 3-D funnel meshes for laparoscopic parastomal hernia prevention and treatment.
Eur Surg 47:127–132. <https://doi.org/10.1007/s10353-015-0319-7>
63. Köhler G, Emmanuel K (2017)
Laparoscopic stoma relocation for parastomal hernia treatment by using a magnetic resonance visible three-dimensional implant.
ANZ J Surg 87:411–412. <https://doi.org/10.1111/ans.12899>
64. Köhler G, Fischer I, Wundsam H (2018)
A Novel Technique for Parastomal Hernia Repair Combining a Laparoscopic and Ostomy-Opening Approach.
J Laparoendosc Adv Surg Tech A 28:209–214. <https://doi.org/10.1089/lap.2017.0313>
65. Köhler G, Mayer F, Wundsam H, et al (2015)
Changes in the Surgical Management of Parastomal Hernias Over 15 Years: Results of 135 Cases.
World J Surg 39:2795–2804. <https://doi.org/10.1007/s00268-015-3187-1>
66. Zhang H, Xie J-M, Miao J-Q, Wu H-R (2016)
Hybrid Approaches for Complex Parastomal Hernia Repair.
J Coll Physicians Surg Pak 26:72–73. <https://doi.org/01.2016/JCPSP.7273>
67. García-Pastor P, Hidalgo M, Gutierrez R, et al (2018)
Prospective Multicenter Blinded Randomized Study Comparing PP and PVDF Mesh Implants in Lichtenstein Procedure with Respect to Pain and Recurrence.
JSM Surgical Procedures 1(1):1002
68. Conze J, Junge K, Weiß C, et al (2008)
New polymer for intra-abdominal meshes-PVDF copolymer.
Journal of Biomedical Materials Research Part B: Applied Biomaterials 87B:321–328. <https://doi.org/10.1002/jbm.b.31106>
69. Kuehnert N, Otto J, Conze J, et al (2014)
Time-Dependent Changes of Magnetic Resonance Imaging-Visible Mesh Implants in Patients.
Investigative Radiology 49:439–444. <https://doi.org/10.1097/RLI.0000000000000051>

CA_CF_M_M_006_en_001a_240813_d

Literature References

70. Hansen NL, Ciritsis A, Otto J, et al (2015)
Utility of Magnetic Resonance Imaging to Monitor Surgical Meshes: Correlating Imaging and Clinical Outcome of Patients Undergoing Inguinal Hernia Repair.
Investigative Radiology 50:436–442. <https://doi.org/10.1097/RLI.0000000000000148>
71. Weyhe D, Klinge U, Uslar VN, et al (2019)
Follow Up Data of MRI-Visible Synthetic Meshes for Reinforcement in Large Hiatal Hernia in Comparison to None-Mesh Repair-A Prospective Cohort Study.
Front Surg 6:17. <https://doi.org/10.3389/fsurg.2019.00017>
72. Suárez-Grau JM, del Agua IA, Bellido Luque JA, et al (2016)
Initial experience in laparoscopic bilateral inguinal hernia repair (TEP) with new anatomical mesh with large pore and low weight (Dynamesh Endolap) in short stay (6 months follow-up).
Ambulatory Surgery 22(3):89–91
73. Cassis C, Mukhopadhyay S, Morris E (2019)
Standardizing abdominal sacrocolpopexy for the treatment of apical prolapse: One year on.
Int J Gynecol Obstet 147:49–53. <https://doi.org/10.1002/ijgo.12935>
74. Bravo-Salva A, González-Castillo AM, Vela-Polanco FF, et al (2020)
Incidence of Incisional Hernia After Emergency Subcostal Unilateral Laparotomy: Does Augmentation Prophylaxis Play a Role?
World J Surg 44:741–748. <https://doi.org/10.1007/s00268-019-05282-7>
75. Köhler G (2020)
Prinzipien und Parallelen der Prävention und Reparation parastomaler Hernien mit Netzen.
Chirurg 91:245–251. <https://doi.org/10.1007/s00104-019-01047-z>
76. Lechner M, Meissnitzer M, Borhanian K, et al (2019)
Surgical and radiological behavior of MRI-depictable mesh implants after TAPP repair: the IRONMAN study.
Hernia 23:1133–1140. <https://doi.org/10.1007/s10029-019-02019-2>
77. Szczepkowski M, Skoneczny P, Przywózka A, et al (2015)
New minimally invasive technique of parastomal hernia repair – methods and review.
Videosurgery and Other Miniinvasive Techniques 1:1–7. <https://doi.org/10.5114/wiitm.2015.50052>
78. Tully KH, Roghmann F, Pastor J, et al (2019)
Parastomal Hernia Repair With 3-D Mesh Implants After Radical Cystectomy and Ileal Conduit Urinary Diversion - A Single-center Experience Using a Purpose Made Alloplastic Mesh Implant.
Urology 131:245–249. <https://doi.org/10.1016/j.urology.2019.05.006>
79. Villalobos RN, Mias MC, Gas C, et al (2019)
Atraumatic laparoscopic intraperitoneal mesh fixation using a new laparoscopic device: an animal experimental study.
Hernia 23:1123–1132. <https://doi.org/10.1007/s10029-019-02008-5>
80. López-Borao J, Madrazo-González Z, Kreisler E, Biondo S (2019)
Prevention of parastomal hernia after abdominoperineal excision with a prophylactic three-dimensional funnel mesh.
Colorectal Dis 21:1326–1334. <https://doi.org/10.1111/codi.14738>

CA_CF_M_M_007_en_001a_240813_d

Literature References

81. Costa Cruz DSL da, D´Ancona CAL, Silva Filho WP da, et al (2020)
Parameters of 2-Dimensional Perineal Ultrasonography Before and After Male Sling Procedure for Urinary Incontinence After Radical Prostatectomy.
Urology 136:257–262. <https://doi.org/10.1016/j.urology.2019.10.004>
82. Gil Ugarteburu R, Rúger Jiménez L, Rodríguez Villamil L, et al (2019)
Laparoscopic Abdominopexy: Surgery for Vaginal Prolapse.
JSLS 23:e2019.00012. <https://doi.org/10.4293/JSLS.2019.00012>
83. Ludwig S, Becker I, Mallmann P, Jäger W (2019)
Comparison of Solifenacin and Bilateral Apical Fixation in the Treatment of Mixed and Urgency Urinary Incontinence in Women: URGE 1 Study, A Randomized Clinical Trial.
In Vivo 33:1949–1957. <https://doi.org/10.21873/invivo.11690>
84. Noé GK, Schiermeier S, Papatthemelis T, et al (2020)
Prospective international multicenter pectopexy trial: Interim results and findings post surgery.
European Journal of Obstetrics & Gynecology and Reproductive Biology 244:81–86. <https://doi.org/10.1016/j.ejogrb.2019.10.022>
85. Rexhepi S, Rexhepi E, Stumm M, et al (2018)
Laparoscopic Bilateral Cervicosacropepy and Vaginosacropepy: New Surgical Treatment Option in Women with Pelvic Organ Prolapse and Urinary Incontinence.
Journal of Endourology 32:1058–1064. <https://doi.org/10.1089/end.2018.0474>
86. Wilson P (2020)
Laparoscopic intraperitoneal onlay mesh (IPOM) repair using n-butyl-2-cyanoacrylate (Liquiband Fix8TM) for mesh fixation: learning experience and short-medium term results.
Hernia 24:1387–1396. <https://doi.org/10.1007/s10029-020-02144-3>
87. Sánchez-Arteaga A, Tallón-Aguilar L, Tinoco-González J, et al (2021)
Use of polyvinylidene fluoride (PVDF) meshes for ventral hernia repair in emergency surgery.
Hernia 25:99–106. <https://doi.org/10.1007/s10029-020-02209-3>
88. Mäkräinen-Uhlbäck EJ, Klintrup KHB, Vierimaa MT, et al (2020)
Prospective, Randomized Study on the Use of Prosthetic Mesh to Prevent a Parastomal Hernia in a Permanent Colostomy: Results of a Long-term Follow-up.
Diseases of the Colon & Rectum 63:678–684. <https://doi.org/10.1097/DCR.0000000000001599>
89. Pereira JA, Pera M, López-Cano M, et al (2019)
Hernias at the Extraction Incision After Laparoscopic Colon and Rectal Resection: Influence of Incision Location and Use of Prophylactic Mesh.
Cirugía Española (English Edition) 97:20–26. <https://doi.org/10.1016/j.cireng.2018.12.008>
90. Özveri E, Şanlı DET, Yıldırım D, et al (2021)
Magnetic resonance visualization of iron-loaded meshes in patients with pain after inguinal hernia repair.
Hernia 25:727–732. <https://doi.org/10.1007/s10029-020-02168-9>
91. Hara T (2004)
Ten-Year Results of Anterior Chamber Fixation of the Posterior ChamberIntraocular Lens.
Arch Ophthalmol 122:1112. <https://doi.org/10.1001/archopht.122.8.1112>

CA_CF_M_M_008_en_001a_240813_d

Literature References

92. Bustos-Jiménez M, Martín-Cartes JA (2020)
Surgical Treatment of Parostomal Hernias by Using A 3D Mesh.
Surg Innov 27(6):695–696. <https://doi.org/10.1177/1553350620936015>
93. Wang H, Klosterhalfen B, Müllen A, et al (2021)
Degradation resistance of PVDF mesh in vivo in comparison to PP mesh.
J Mech Behav Biomed Mater 119:104490. <https://doi.org/10.1016/j.jmbbm.2021.104490>
94. Ramser M, Baur J, Keller N, et al (2021)
Robotic hernia surgery I. English version: Robotic inguinal hernia repair (r TAPP). Video report and results of a series of 302 hernia operations.
Chirurg 92 (Suppl 1):1–13. <https://doi.org/10.1007/s00104-021-01446-1>
95. Ammann Y, Widmann B, Sparn M, et al (2021)
Prophylactic Funnel Mesh to Prevent Parastomal Hernia in Permanent End Colostomy: A Retrospective Cohort Study.
Colorectal Dis 23:2627–2636. <https://doi.org/10.1111/codi.15817>
96. Cartes JAM, Bustos-Jiménez M, Tamayo-López MJ (2018)
Parostomal Hernia: A More and More Frequent Surgical Challenge.
Clin Surg 3:1960
97. Carus T (2021)
Die laparoskopische IPOM-Operation bei Nabel- und Bauchwandhernien – Netzfixierung in Klebetechnik.
Chirurgische Allgemeine 4+5:212–216
98. Noé GK, Schiermeier S, Papatthemelis T, et al (2021)
Prospective International Multicenter Pelvic Floor Study: Short-Term Follow-Up and Clinical Findings for Combined Pectopexy and Native Tissue Repair.
JCM 10:217. <https://doi.org/10.3390/jcm10020217>
99. Sabadell J, Pereda-Núñez A, Ojeda-de-los-Santos F, et al (2021)
Polypropylene and polyvinylidene fluoride transobturator slings for the treatment of female stress urinary incontinence: 1-Year outcomes from a multicentre randomized trial.
Neurourology and Urodynamics 40:475–482. <https://doi.org/10.1002/nau.24586>
100. Karabulut A, Simavli SA, Abban GM, et al (2016)
Tissue reaction to urogynecologic meshes: effect of steroid soaking in two different mesh models.
Int Urogynecol J 27:1583–1589. <https://doi.org/10.1007/s00192-016-3013-9>
101. The HerniaSurge Group (2018)
International guidelines for groin hernia management.
Hernia 22:1–165. <https://doi.org/10.1007/s10029-017-1668-x>
102. Klinge U, Park J-K, Klosterhalfen B (2013)
‘The Ideal Mesh?’.
Pathobiology 80:169–175. <https://doi.org/10.1159/000348446>
103. Klosterhalfen B, Klinge U (2013)
Retrieval study at 623 human mesh explants made of polypropylene – impact of mesh class and indication for mesh removal on tissue reaction.
J Biomed Mater Res 101:1393–1399. <https://doi.org/10.1002/jbm.b.32958>

CA_CF_M_M_009_en_001a_240813_d

Literature References

104. Klinge U, Junge K, Spellerberg B, et al (2002)
Do multifilament alloplastic meshes increase the infection rate? Analysis of the polymeric surface, the bacteria adherence, and their vivo consequences in a rat model.
J Biomed Mater Res 63:765–771. <https://doi.org/10.1002/jbm.10449>
105. Klinge U, Klosterhalfen B, Birkenhauer V, et al (2002)
Impact of Polymer Pore Size on the Interface Scar Formation in a Rat Model.
Journal of Surgical Research 103:208–214. <https://doi.org/10.1006/jsre.2002.6358>
106. Barakat B, Hijazi S, Vogeli T-A (2021)
Use of polyvinylidene fluoride in treatment of female stress urinary incontinence: Efficacy and safety of midurethral slings: 24-month follow-up results.
Turkish Journal of Urology 47:216–222. <https://doi.org/10.5152/tud.2021.21059>
107. Göretzlehner U (2007)
PVDF as an implant material in urogynaecology.
Biomaterialien 8 (S1)
108. Padilla-Fernández B, García-Cenador MB, Gómez-García A, et al (2013)
Results of the surgical correction of urinary stress incontinence according to the type of transobturator tape utilized.
Arch Ital Urol Androl 85:149–153. <https://doi.org/10.4081/aiua.2013.3.149>
109. Baker JJ, Öberg S, Rosenberg J (2023)
Reoperation for Recurrence is Affected by Type of Mesh in Laparoscopic Ventral Hernia Repair: A Nationwide Cohort Study.
Annals of Surgery 277:335–342. <https://doi.org/10.1097/SLA.0000000000005206>
110. Pereira-Rodríguez JA, Amador-Gil S, Bravo-Salva A, et al (2021)
Implementing a protocol to prevent incisional hernia in high-risk patients: a mesh is a powerful tool.
Hernia 26:457–466. <https://doi.org/10.1007/s10029-021-02527-0>
112. Birolini C, Tanaka EY, de Miranda JS, et al (2022)
The early outcomes of complex abdominal wall reconstruction with polyvinylidene (PVDF) mesh in the setting of active infection: a prospective series.
Langenbecks Arch Surg 407:3089–3099. <https://doi.org/10.1007/s00423-022-02625-2>
113. Poluzzi M, Campo G (2022)
Treatment of Male Stress Urinary Incontinence with A Fixed Sling Made of PVDF - 6-Year Follow-Up Data.
J Urol Ren Dis 7:1273. <https://doi.org/10.29011/2575-7903.001273>
114. Haroon M, Morarasu S, Morarasu B, et al (2022)
Assessment of feasibility and safety of cyanoacrylate glue versus absorbable tacks for inguinal hernia mesh fixation. A prospective comparative study.
Videosurgery and Other Miniinvasive Techniques 18:90–98. <https://doi.org/10.5114/witm.2022.119780>
115. Vierstraete M, Beckers R, Vangeel L, et al (2023)
Prospective cohort study on mesh shrinkage measured with MRI after robot-assisted minimal invasive retrorectus ventral hernia repair using an iron-oxide-loaded polyvinylidene fluoride mesh.
Surg Endosc 37:4604–4612. <https://doi.org/10.1007/s00464-023-09938-3>

CA_CF_M_M_011_en_001a_240813_d

Literature References

116. Beckers R, Vierstraete M, Muysoms F (2023)
3D Imaging of the Abdominal Wall.
In: Docimo S, Blatnik JA, Pauli EM (eds) Fundamentals of Hernia Radiology. Springer International Publishing, Cham, pp 97–124

117. Wang H, Klosterhalfen B, Klinge U, et al (2023)
Influence of polypropylene mesh degradation on tissue inflammatory reaction.
J Biomedical Materials Res 111:1110–1119. <https://doi.org/10.1002/jbm.a.37494>

118. Wang Y, Zhang P (2014)
A comparative study of polyvinylidene fluoride and polypropylene hernia meshes in creep behavior and elasticity.
Textile Research Journal 84:1558–1566. <https://doi.org/10.1177/0040517514525879>

119. Schmitz SM, Helmedag MJ, Kroh A, et al (2023)
Choice of Polymer, but Not Mesh Structure Variation, Reduces the Risk of Bacterial Infection with Staphylococcus aureus In Vivo.
Biomedicine 11:2083. <https://doi.org/10.3390/biomedicine11072083>

120. Gossetti F, D'amore L, Grimaldi MR, et al (2023)
Rives-Stoppa Repair of Incisional Hernias Using PVDF Mesh: A 10-Year Experience of a Dedicated Surgical Team.
JSM Gastroenterology and Hepatology 10(1):1115

121. Berger D (2023)
Perspectives of prevention and treatment of parastomal hernia-what do we really know and where should we go? Mini-invasive
Surg 7:24. <https://doi.org/10.20517/2574-1225.2023.30>

122. Frotscher R, Staat M (2014)
Stresses produced by different textile mesh implants in a tissue equivalent.
BioNanoMaterials 15:25–30. <https://doi.org/10.1515/bnm-2014-0003>

123. Zargham M, Dehghani M, Gholipour F, et al (2023)
Triple-compartment strategy for abdominal sacral colpopexy using PVDF mesh: one-year report of anatomical and subjective outcomes.
Int Urogynecol J 34:1907–1914. <https://doi.org/10.1007/s00192-023-05471-y>

124. Kritharides N, Papaconstantinou D, Kykalos S, et al (2023)
Laparoscopic parastomal hernia repair: keyhole, Sugarbaker, sandwich, or hybrid technique with 3D mesh? An updated systematic review and meta-analysis.
Langenbecks Arch Surg 408:448. <https://doi.org/10.1007/s00423-023-03177-9>

125. Bertoglio CL, Maspero M, Morini L, et al (2021)
Permanent end-colostomy parastomal hernia prevention using a novel three-dimensional mesh.
Hernia 25:655–663. <https://doi.org/10.1007/s10029-020-02326-z>

126. Pini R, Mongelli F, Iaquinandi F, et al (2024)
Switching from robotic-assisted extended transabdominal preperitoneal (eTAPP) to totally extraperitoneal (eTEP) hernia repair for umbilical and epigastric hernias.
Sci Rep 14:1800. <https://doi.org/10.1038/s41598-024-52165-6>

CA_CF_M_M_012_en_001a_240813_d

Literature References

127. Clavé A, Yahi H, Hammou J-C, et al (2010)
Polypropylene as a reinforcement in pelvic surgery is not inert: comparative analysis of 100 explants.
International Urogynecology Journal 21:261–270. <https://doi.org/10.1007/s00192-009-1021-8>

128. Junge K, Klinge U, Prescher A, et al (2001)
Elasticity of the anterior abdominal wall and impact for reparation of incisional hernias using mesh implants.
Hernia 5:113–118. <https://doi.org/10.1007/s100290100019>

129. Śmietański M, Bury K, Tomaszewska A, et al (2012)
Biomechanics of the front abdominal wall as a potential factor leading to recurrence with laparoscopic ventral hernia repair.
Surg Endosc 26:1461–1467. <https://doi.org/10.1007/s00464-011-2056-8>

130. Ostergard DR (2011)
Degradation, infection and heat effects on polypropylene mesh for pelvic implantation: what was known and when it was known.
International Urogynecology Journal 22:771–774. <https://doi.org/10.1007/s00192-011-1399-y>

131. Badia-Closa J, Comas-Isus J, Centeno-Alvarez A, et al (2024)
Parastomal hernia prevention with an intraperitoneal prophylactic 3D-funnel mesh: review of the technique and middle-term results.
Hernia 28:1129–1135. <https://doi.org/10.1007/s10029-024-02989-y>

132. Kallinowski F, Baumann E, Harder F, et al (2015)
Dynamic intermittent strain can rapidly impair ventral hernia repair.
Journal of Biomechanics 48:4026–4036. <https://doi.org/10.1016/j.jbiomech.2015.09.045>

133. Kallinowski F, Harder F, Silva TG, et al (2017)
Bridging with reduced overlap: fixation and peritoneal grip can prevent slippage of DIS class A meshes.
Hernia 21:455–467. <https://doi.org/10.1007/s10029-017-1583-1>

134. Kallinowski F, Ludwig Y, Löffler T, et al (2021)
Biomechanics applied to incisional hernia repair - Considering the critical and the gained resistance towards impacts related to pressure.
Clin Biomech (Bristol, Avon) 82:105253. <https://doi.org/10.1016/j.clinbiomech.2020.105253>

135. Kallinowski F, Gutjahr D, Harder F, et al (2021)
The Grip Concept of Incisional Hernia Repair—Dynamic Bench Test, CT Abdomen With Valsalva and 1-Year Clinical Results.
Front Surg 8:602181. <https://doi.org/10.3389/fsurg.2021.602181>

CA_CF_M_M_013_en_001a_240813_d

Tailored Implants Made of PVDF

Internal test report references

Internal Test Reports

TR1. CF_F02 Biocompatibility

TR10. I1_F03-01_SIS1_X Stability and Elongation (bench test)

TR11. I1_F03-02_SIS1_X Porosity and Formstability (bench test)

TR12. I1_F03-03_SIS1_X Formstability (bench test)

TR13. I1_F03-01-12_SIS1_X Loop Stability (bench test)

TR21. H1_F03-01-03_END1_X Tear Propagation Resistance (bench test)

TR23. H1_F03-01-05_END1_X Porosity (bench test)

TR31. H1_F03-01-03_CIC1_X Tear Propagation Resistance (bench test)

TR33. H1_F03-01-05_CIC1_X Porosity (bench test)

TR35. H1_F03-01-07_CIC1_X Rationale for Technical Specifications (bench test)

TR38. H1_F03-01-01_CIC1_X Tensile Test Elongation (bench test)

TR50. H1_F03-01-01_HIA1_X Tensile Test Elongation (bench test)

TR51. H1_F03-01-05_HIA1_X Porosity (bench test)

TR62. H1_F03-01-03_IPO1_X Tear Propagation Resistance (bench test)

TR64. H1_F03-01-05_IPO1_X Porosity (bench test)

TR71. H1_F03-01-05_IPS1_X Porosity (bench test)

TR82. H1_F03-01-03_LIC1_X Tear Propagation Resistance (bench test)

TR83. H1_F03-01-05_LIC1_X Porosity (bench test)

TR100. P1_F03-01-01_BSA1_X Tensile Test and Elongation (bench test)

TR101. P1_F03-01-05_BSA1_X Porosity (bench test)

TR110. P1_F03-01-01_PR1_X Tensile Test and Elongation (bench test)

TR111. P1_F03-01-05_PR1_X Porosity (bench test)

TR120. P1_F03-01-01_PRP1_X Tensile Test and Elongation (bench test)

TR121. P1_F03-01-05_PRP1_X Porosity (bench test)

TR130. P1_F03-01-01_PRS1_X Tensile Test and Elongation (bench test)

TR132. P1_F03-01-05_PRS1_X Porosity (bench test)

CA_CF_M_M_010_en_001a_240319_d

hergestellt durch / manufactured by: FEG Textiltechnik Forschungs- und Entwicklungsgesellschaft mbH
Prager Ring 70, 52070 Aachen, Germany · [www.dyna-mesh.com](#)

made in Germany

70

Tailored Implants Made of PVDF

Internal Test Reports

Some of our devices may not be available in your country. Please contact your local distributor for more information.

www.dyna-mesh.com

hergestellt durch / manufactured by /
fabriqué par / fabricado por / fabbricato da
FEG Textiltechnik
Forschungs- und Entwicklungsgesellschaft mbH
Prager Ring 70
52070 Aachen, Germany

Distributed by:

CA_CF_A_A_001_en_001a_240319_d

hergestellt durch / manufactured by: FEG Textiltechnik Forschungs- und Entwicklungsgesellschaft mbH
Prager Ring 70, 52070 Aachen, Germany · [www.dyna-mesh.com](#)

made in Germany

71

Some of our devices may not be available in your country. Please contact your local distributor for more information.



www.dyna-mesh.com

hergestellt durch / manufactured by /
fabriqué par / fabricado por / fabbricato da
FEG Textiltechnik
Forschungs- und Entwicklungsgesellschaft mbH
Prager Ring 70
52070 Aachen, Germany



Distributed by: **DAHLHAUSEN CZ**

DAHLHAUSEN CZ, spol. s r.o.
Knínická 1577/8
664 34 Kuřim
+420 541 422 070
info@dahl.cz
www.dahlhausen.cz

CA_CF_A_A_014_en 001a_240319_d

CW_A_001_en 001a_241119_d