

DynaMesh[®]

Implants for the surgical treatment of
hernias

■ made
■ in
■ Germany

Tailored Implants
Made of **PVDF**

Profile and Competences



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 Textiltechnik 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.

Constant and close contact with major scientific, medical and technical institutions ensures that FEG's high-quality products meet the latest requirements in terms of patient comfort and surgical handling. The sophisticated quality management system at FEG Textiltechnik is fully certified to DIN 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 Textiltechnik will continue to set technical benchmarks in the future.

DynaMesh®

Milestones

1992 Founding of:



2003 Certification of:



2011 Development of MRI-visible technology



2014 New 4,200m² offices & production plant



2020 Additional 600m² production/storage capacity



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

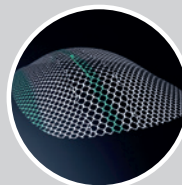
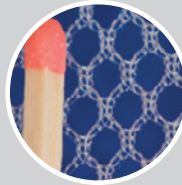
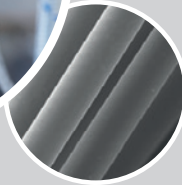
2016 First implant for the surgical treatment of hiatal hernias

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 70 employees

Implants 'made in Germany'

DynaMesh[®]



Filament

Warp-Knitted Fabric

Implant

Spinning

Warp-Knitting

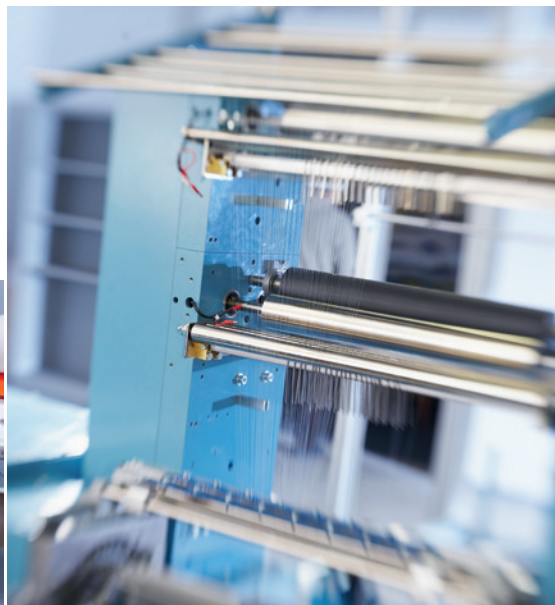
Finishing

Washing, Sterilisation

From Thread to Implant:

Full quality control along the entire production chain.

Development and manufacturing in Aachen, Germany

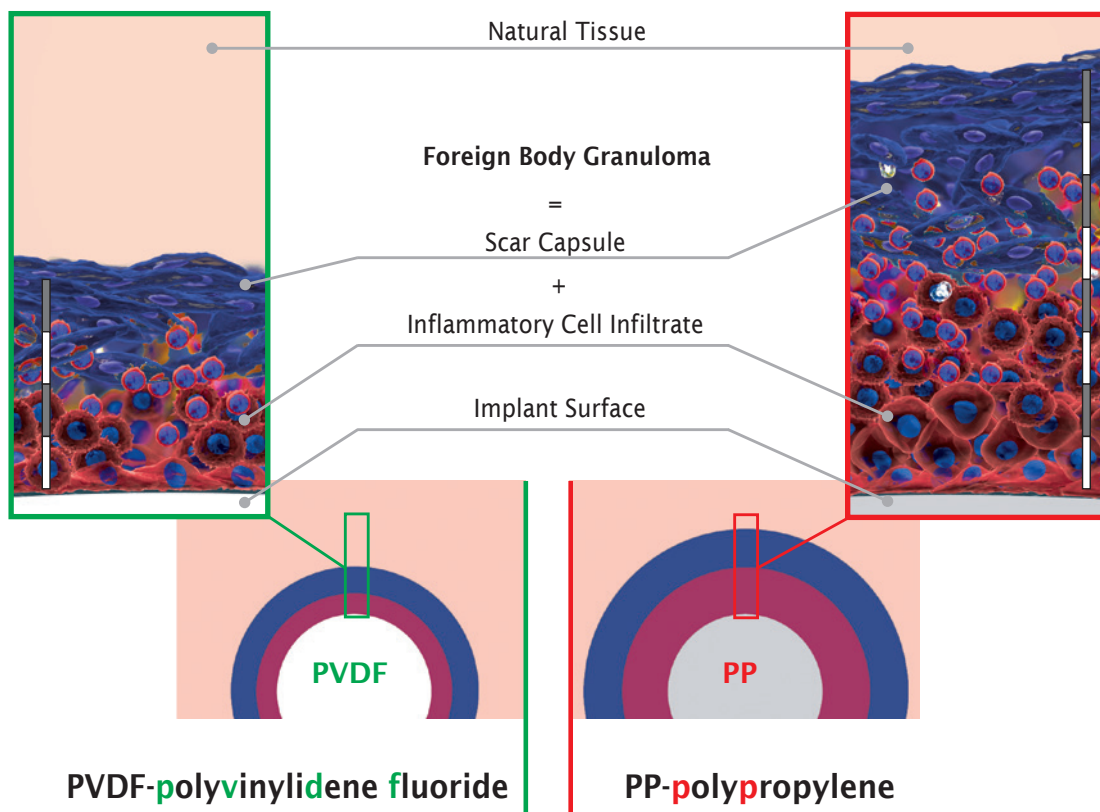


Biocompatibility

PVDF mesh structures have good biocompatibility (assessed according to ISO 10993) and show significantly lower granuloma formation (scar tissue) [1^A,2^A,4^A,68^A,100^B]. Therefore, the risk of undesirable foreign body reactions is minimised.

Cross-Sectional View

A comparison of different granuloma thicknesses



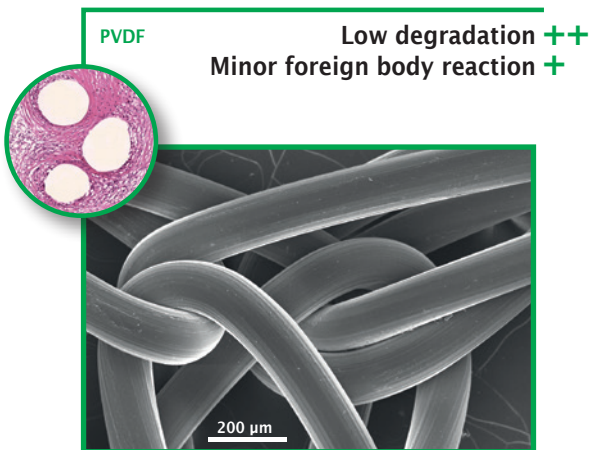
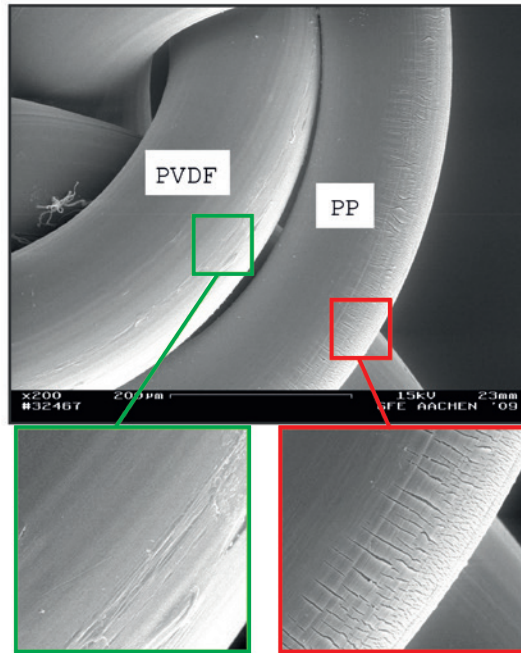
[#] Reference "#" (see "References")
 [#^A] Reference "#" (see "References"),
 "A": limitation "animal trial"
 [#^B] Reference "#" (see "References"),
 "B": limitation "in-vitro trial"

Vi001 de	DynaMesh® Implantate - Animation: Fremdkörperreaktion - Vergleich zwischen PVDF und PP https://de.dyna-mesh.com/Vi001de	
Vi001 en	DynaMesh® Implants - Animation: Foreign Body Reaction - Comparison of PVDF and PP https://de.dyna-mesh.com/Vi001en	

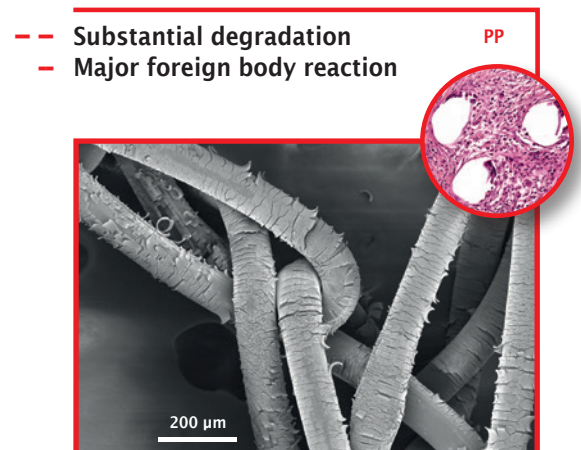
Ageing Resistance

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

Long-term data with observation periods of up to seven years prove that: The condition of the PVDF surface remains unchanged, filaments are still stable, nothing becomes brittle [101,2^A,5^B,27^A,52^B,93^A].



PVDF-polyvinylidene fluoride



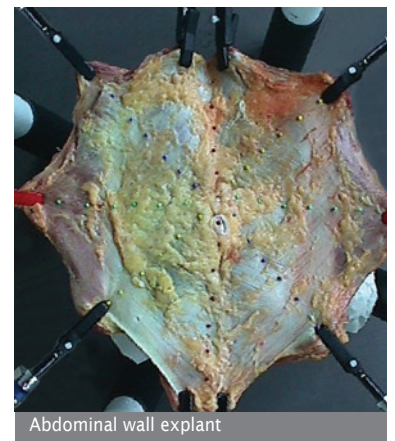
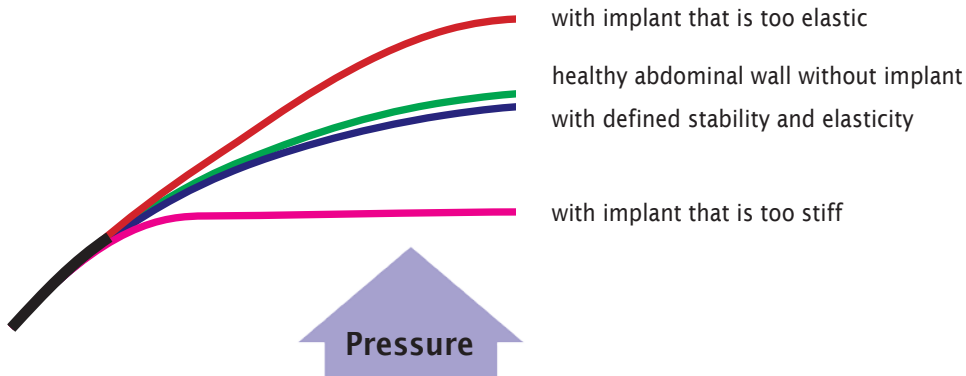
PP-polypropylene

[#] Reference "#" (see "References")
 [#^A] Reference "#" (see "References"), "A": limitation "animal trial"
 [#^B] Reference "#" (see "References"), "B": limitation "in-vitro trial"

Dynamometry

Textile implants must reinforce tissue. They have to cushion different forces - including the extreme stresses associated with coughing, sneezing and laughing. What is needed therefore, is a good interaction between stability and elasticity.

The behaviour of abdominal walls with different mesh implants under load

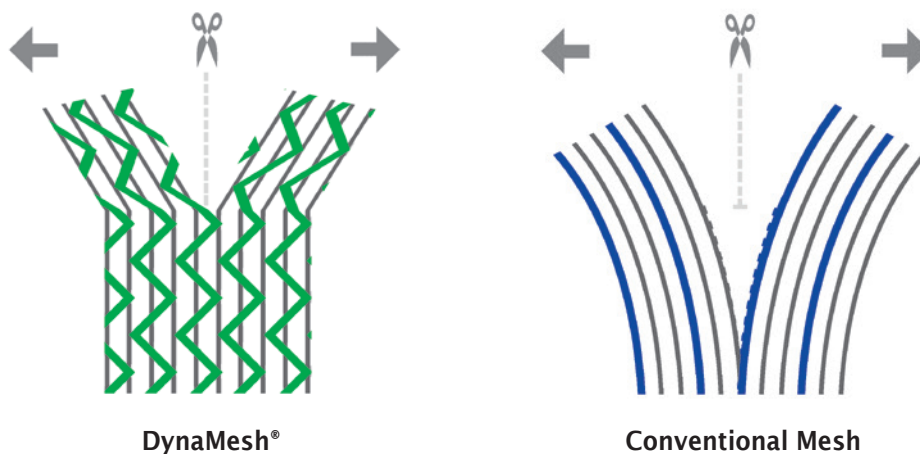


A study of explanted abdominal walls
(source: Aachen University Hospital, Germany)

Tear Propagation Resistance

The multiple meshing technique in warp-knitted* DynaMesh® structures minimises the risk of the zipper effect (once torn, the structure tears further).

The load-specific adapted tear resistance is one of the key properties of DynaMesh® implants.



DynaMesh®

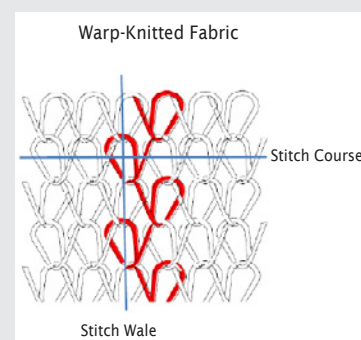
Conventional Mesh

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.

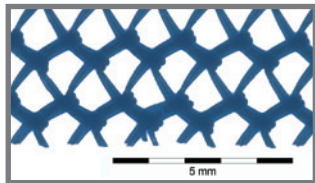
*Warp-Knitted Fabric

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

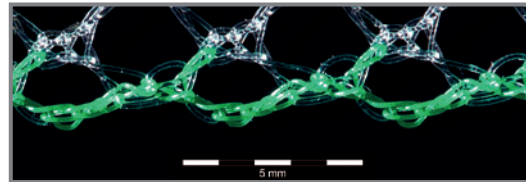


Specially Warp-knitted Selvedges

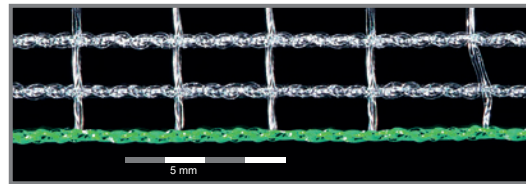
DynaMesh® products are not simply cut from a flat piece of mesh.
Special warp-knitting machines produce smooth selvedges
(no 'sawtooth' edges!).



Conventional Mesh

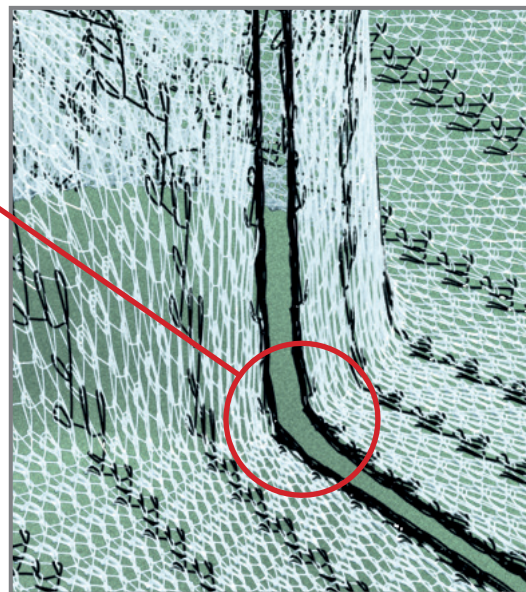


DynaMesh®-LICHTENSTEIN



DynaMesh®-SIS soft

Also in three-dimensionally
shaped implants

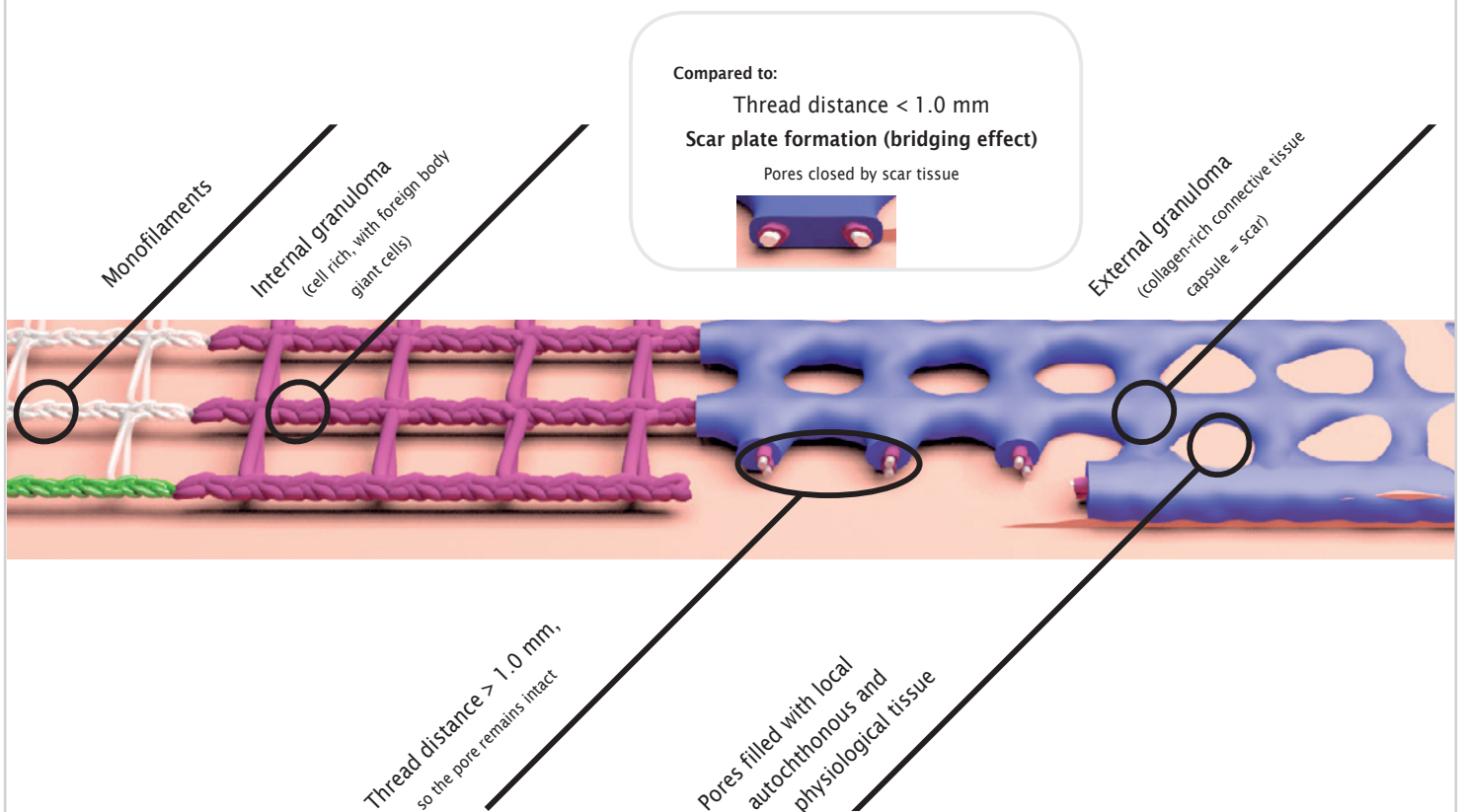


DynaMesh®-IPST-R visible

Effective Porosity

During incorporation, the filaments are enclosed by an internal and external granuloma. When filament distance is too small, there is a risk that the whole intervening space will be filled with scar tissue (closed pores). Sufficiently large pores can prevent this [8C].

How is this prevented? PP implants must have a **pore diameter of at least 1 mm** in all directions, even under load! In the case of **PVDF** implants, a diameter of **0.6 mm** is already sufficient to keep the pores open due to the lower granuloma thickness. Only in this way can local autochthonous tissue form through a pore [6,68^A,105^A].



[#] Reference "#" (see "References")

[#A] Reference "#" (see "References"), "A": limitation "animal trial"

[#C] Reference "#" (see "References"), "C": limitation "results based on the analysis of explants"

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.

Rule of thumb:

A 'pore' less than 1 mm in diameter is closed by the body with scar tissue = 0% effective porosity

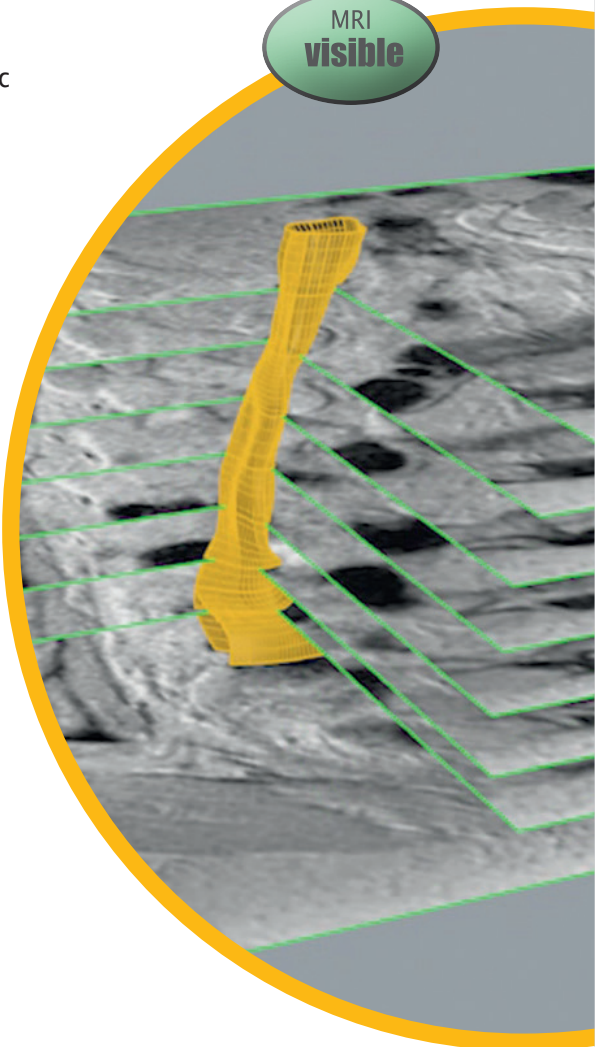
DynaMesh® visible

Conventional mesh implants are mostly undetectable in diagnostic radiology.

DynaMesh® visible implants can be detected using magnetic resonance imaging (MRI) [7,29^A,51,54,56,62,69-71,76,90] - both in standard sequences and in high-resolution, three-dimensional images and even films. As such, position and condition of the implant can be determined reliably and accurately.

DynaMesh® visible is the world's first technology to visualise textile implants. The PVDF filament is mixed with ferromagnetic micro-pigments according to a proprietary process that ensures optimum pigment incorporation. This innovation has won an award from the German Federal Ministry of Education and Research (BMBF 01EZ 0849).

MRI
visible



Award-winner in the innovation competition hosted by the

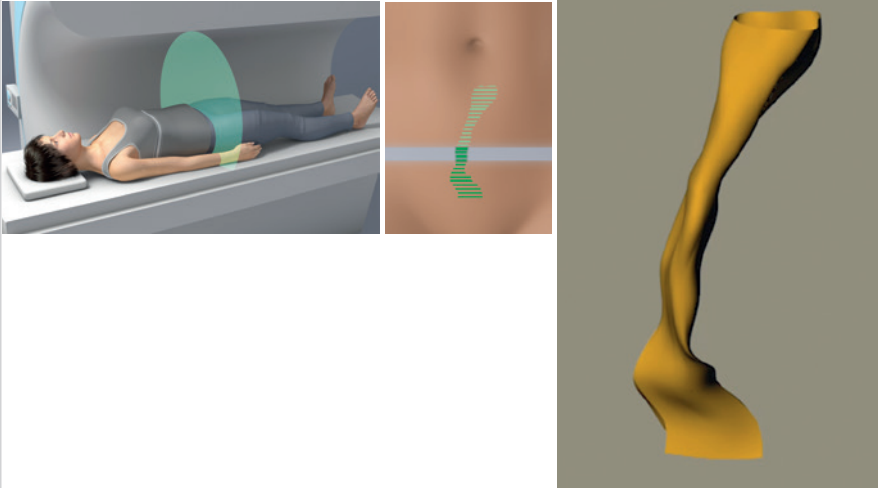


The development was sponsored by the
German Federal Ministry
of Education and Research
(BMBF 01EZ 0849)

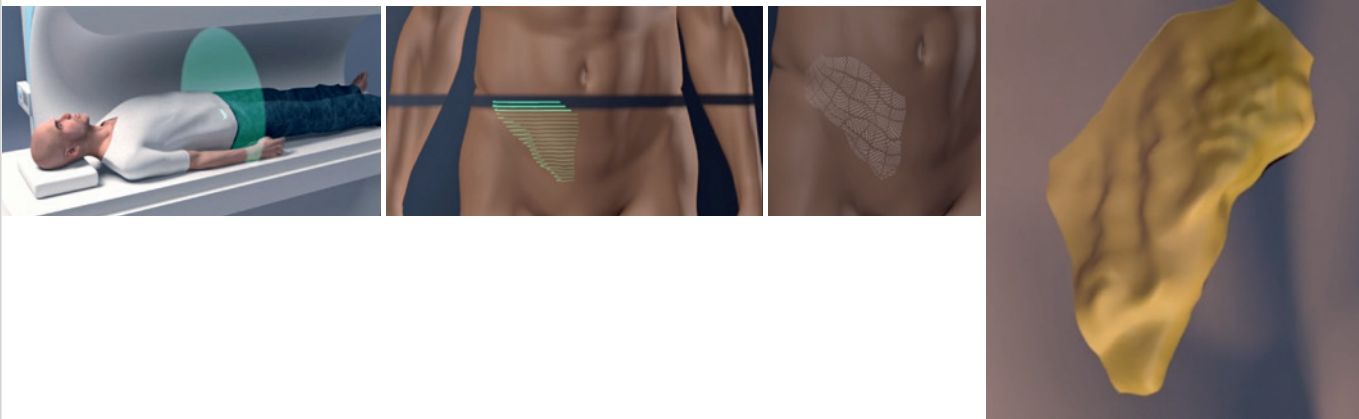
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[#^A] Reference "#" (see "References"), "A": limitation "animal trial"

DynaMesh® visible




DynaMesh®-PRS visible 3-dimensional remodelling



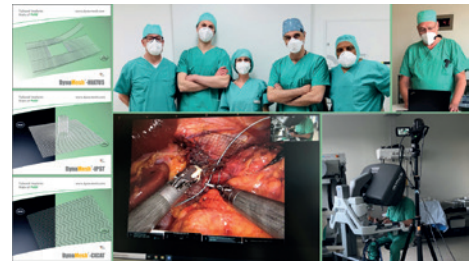
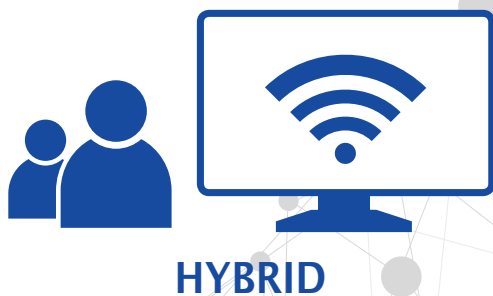
DynaMesh®-ENDOLAP visible 3-dimensional remodelling



During MRI scans, the part of the body being analysed is scanned step-by-step and deconstructed into many 'wafer-thin optical slices'. At the end, these 'slices' are reconstructed to form 3-dimensional images or motion sequences (remodelling).

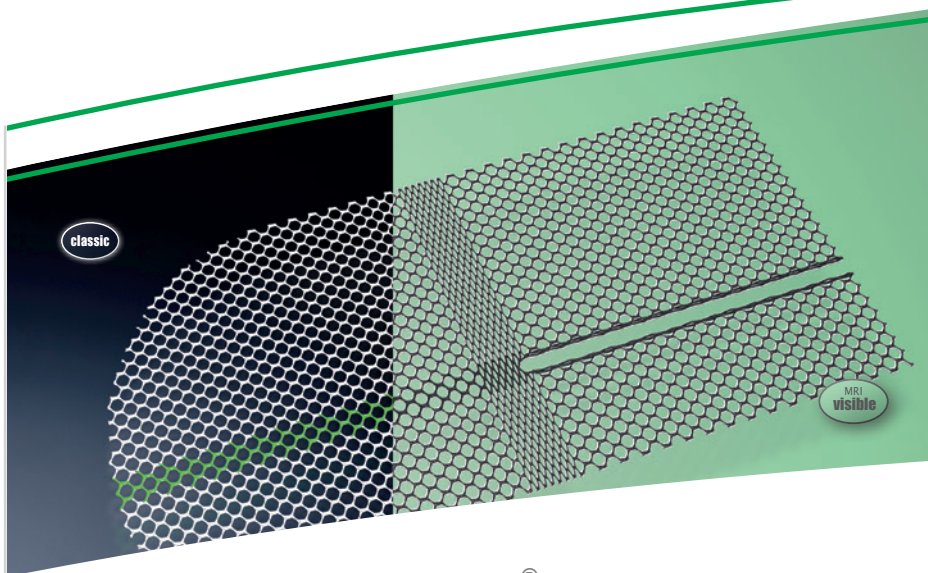
Vi069XX	DynaMesh® MRI - Animation: MRI Reconstruction with DynaMesh®-PRP visible https://de.dyna-mesh.com/Vi069xx	
Vi067XX	DynaMesh® MRI - Animation: MRI Reconstruction with DynaMesh®-PRS visible https://de.dyna-mesh.com/Vi067xx	
Vi032XX	DynaMesh®-ENDOLAP visible - Animation: MRI visible - 3D Implant Remodelling https://de.dyna-mesh.com/Vi032xx	

LiSTO.academy is a comprehensive platform providing excellent customised surgical education and trainings. Through cooperations with experienced surgeons and renowned experts from around the world, **LiSTO.academy** enables physicians to achieve best patient outcomes using DynaMesh® implants.



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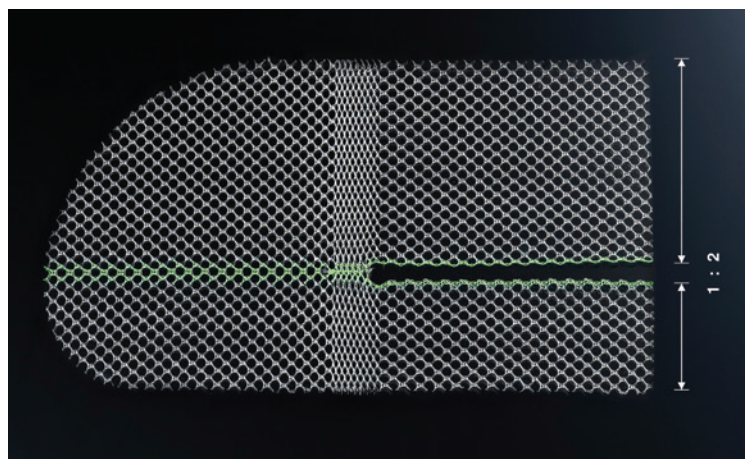
DynaMesh®-LICHTENSTEIN implants serve to support the tissue and stabilise the fascial structures of the inguinal region. They were specially developed for the conventional repair of inguinal hernias according to Lichtenstein and come in a size which fits the majority of patients and can therefore be used immediately without needing to be cut to size.

DynaMesh®-LICHTENSTEIN

When selecting the mesh size, ensure sufficient overlap!

DynaMesh®-LICHTENSTEIN	06 cm x 11 cm	PV110611F3	BX = 3 pieces
		PV110611F10	BX = 10 pieces
	7.5 cm x 15 cm	PV110715F1	BX = 1 piece
		PV110715F3	BX = 3 pieces
		PV110715F10	BX = 10 pieces
DynaMesh®-LICHTENSTEIN visible	7.5 cm x 15 cm	PV170715F1	BX = 1 piece

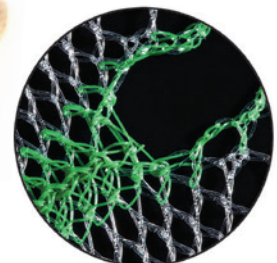
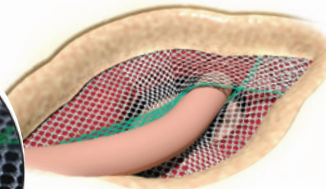
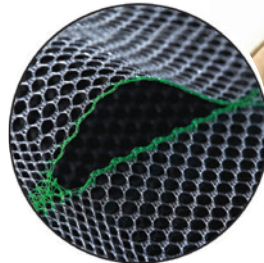
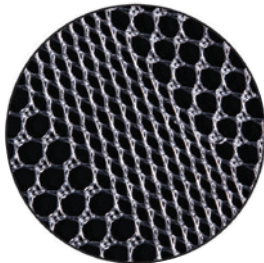
can be used both
for the right and
the left side



Use and Properties

Product	DynaMesh®-LICHTENSTEIN	DynaMesh®-LICHTENSTEIN visible
Field of application	inguinal hernia	
Surgical access	open	
Surgical technique	Lichtenstein	
Mesh position	anterior	
Fixation	sutures / adhesives	
Green/black line marker		●
Specially Warp-knitted Selvedges		●
Visible technology	●	●
Polymer (monofilament)	PVDF	
Biocompatibility	●	
Ageing resistance	●	
Dynamometry	●	
Tear propagation resistance	●	
No scar plate formation	●	
Classification (Klinge's classification [8])	1 a	

For example: inguinal hernia, left side



Less Effort

The elastic zone in the mesh, incorporated by using a special warp-knitting technique, makes it easier for the surgeon to achieve **fold-free** positioning of the implant.

Less Risk

The special slit design enables tunnel modulation with **pressure distribution**.

High Tear Propagation Resistance

The high tear propagation resistance at the end point of the slit **minimises** the risk of **mesh rupture**.

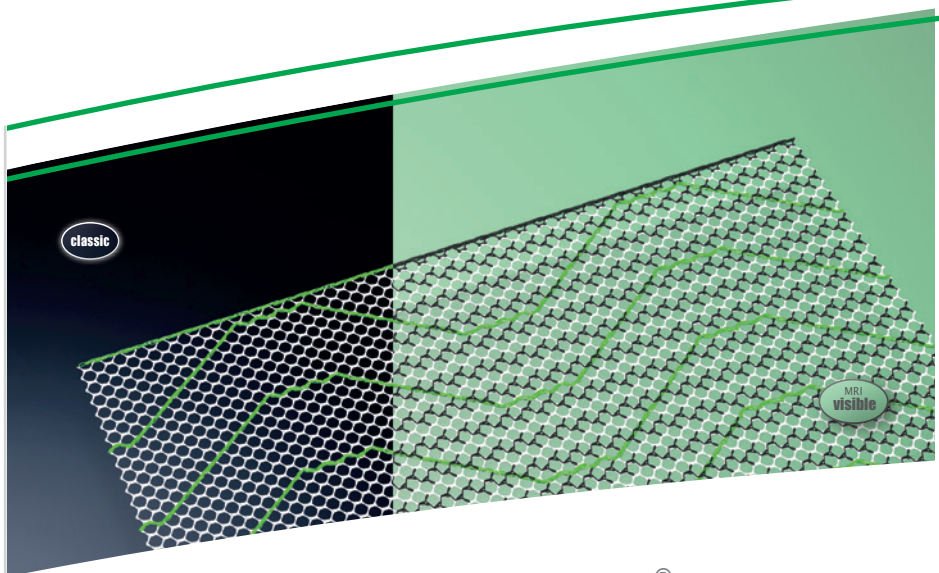
- Applies to all product sizes
- Does not apply

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DynaMesh®-ENDOLAP implants serve to support the tissue and stabilise the fascial structures of the groin. They were specially developed for the endoscopic (laparoscopic) repair of inguinal hernias using common minimally invasive surgical techniques (TEP and TAPP).

DynaMesh®-ENDOLAP

When selecting the mesh size, ensure sufficient overlap!

DynaMesh®-ENDOLAP	10 cm x 15 cm	PV101015F1	BX = 1 piece
		PV101015F3	BX = 3 pieces
		PV101015F10	BX = 10 pieces
	12 cm x 15 cm	PV101215F3	BX = 3 pieces
		PV101215F10	BX = 10 pieces
	13 cm x 15 cm	PV101315F3	BX = 3 pieces
	13 cm x 17 cm	PV101317F3	BX = 3 pieces
		PV101317F10	BX = 10 pieces
	15 cm x 15 cm	PV101515F3	BX = 3 pieces
		PV101515F10	BX = 10 pieces
DynaMesh®-ENDOLAP visible	10 cm x 15 cm	PV141015F1	BX = 1 piece
		PV141015F10	BX = 10 pieces

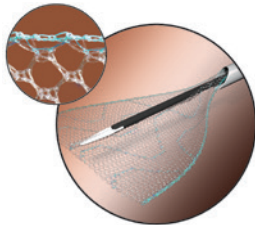
VI032xx

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



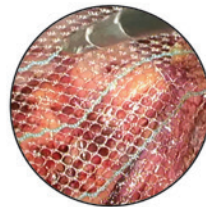
Use and Properties

Product	DynaMesh®-ENDOLAP	DynaMesh®-ENDOLAP visible
Field of application	inguinal hernia	
Surgical access	endoscopic / laparoscopic	
Surgical technique	TEP / TAPP	
Mesh position	preperitoneal (posterior)	
Fixation	none / sutures / adhesives / tacks	
Green line marker		●
Specially Warp-knitted Selvedges		●
Visible technology	●	●
Polymer (monofilament)		PVDF
Biocompatibility		●
Ageing resistance		●
Dynamometry		●
Tear propagation resistance		●
No scar plate formation		●
Classification (Klinge's classification [8])		1a



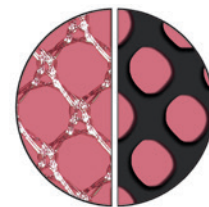
Intraoperative Unfolding

The special textile construction makes it easy to insert the mesh via the trocar and to unfold it intraoperatively. The **antislip** surface and special selvedges ensure fold-free positioning. The green marker lines perform a dual function. They are used for rapid orientation and visual monitoring of whether the mesh is positioned tension-free.



Choice of Method

DynaMesh®-ENDOLAP was developed specifically for **endoscopic (TEP)¹⁾** and **laparoscopic (TAPP)** techniques. Should the surgeon consider fixation of the implant to be necessary, all fixation methods may be used.



Pore Size

The special warp-knitted structure results in a high textile porosity. It is the basis for the **effective porosity** after the formation of the foreign body granuloma, which minimises the risk of scar plate formation.

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

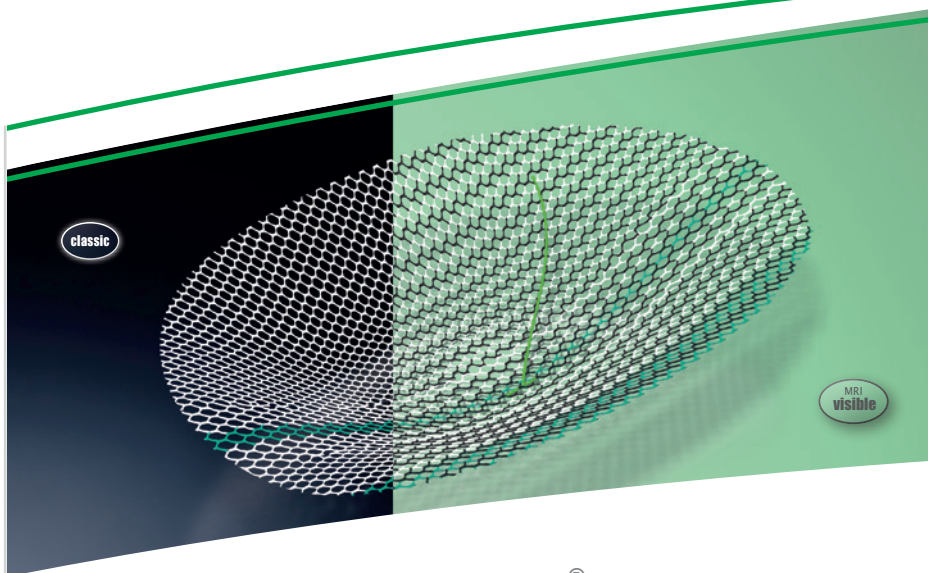
- Applies to all product sizes
- Does not apply

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DynaMesh®-ENDOLAP 3D implants are used to reinforce connective tissue structures in the groin region. They were specially developed for the endoscopic (laparoscopic) repair of inguinal hernias using current minimally invasive surgical techniques (TEP and TAPP).

DynaMesh®-ENDOLAP 3D

When selecting the mesh size, ensure sufficient overlap!

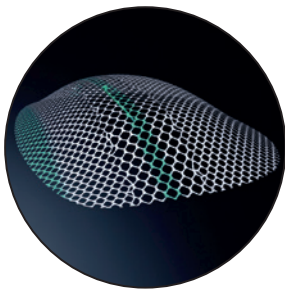
DynaMesh®-ENDOLAP 3D	09 cm x 14 cm	PV130914F1	BX = 1 piece
		PV130914F3	BX = 3 pieces
	10 cm x 15 cm regular	PV131015F1	BX = 1 piece
		PV131015F3	BX = 3 pieces
	12 cm x 17 cm	PV131217F1	BX = 1 piece
		PV131217F5	BX = 5 pieces
DynaMesh®-ENDOLAP 3D visible	10 cm x 15 cm	PV121015F1	BX = 1 piece
		PV121015F3	BX = 3 pieces
	12 cm x 17 cm	PV121217F1	BX = 1 piece

can be used both for the right and the left side

VI012xx	DynaMesh®-ENDOLAP 3D - Animation: Total Extraperitoneal Endoscopic Hernioplasty (TEP) https://de.dyna-mesh.com/Vi012xx	
VI013xx	DynaMesh®-ENDOLAP 3D - Animation: TAPP Technique for Treatment of Inguinal Hernia https://de.dyna-mesh.com/Vi013xx	

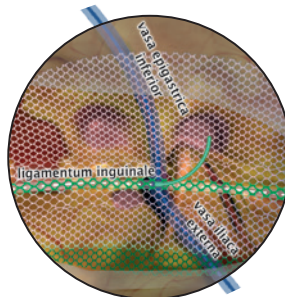
Use and Properties

Product	DynaMesh®- ENDOLAP 3D	DynaMesh®- ENDOLAP 3D visible
Field of application	inguinal hernia	
Surgical access	endoscopic / laparoscopic	
Surgical technique	TEP / TAPP	
Mesh position	preperitoneal (posterior)	
Fixation	none / sutures / adhesives / tacks	
Green thread and line marker		●
CURVATOR®		●
Visible technology	●	●
Polymer (monofilament)	PVDF	
Biocompatibility	●	
Ageing resistance	●	
Dynamometry	●	
Tear propagation resistance	●	
No scar plate formation	●	
Classification (Klinge's classification [8])	1 a	



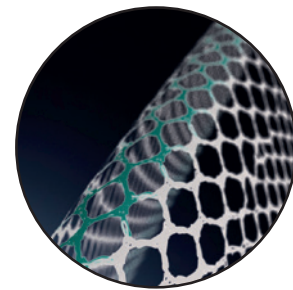
Optimised Shape

The **three-dimensional** form of the mesh enables the adaptation to the anatomy of the groin region.



Standardised Positioning

The implants have a central marking and a longitudinal marking for **alignment** with the inguinal ligament.



CURVATOR®

The pore size of the mesh varies laterally to the longitudinal marking in order to **reduce postoperative creasing** along the length of the inguinal ligament and to ensure high effective porosity.

● Applies to all product sizes
● Does not apply

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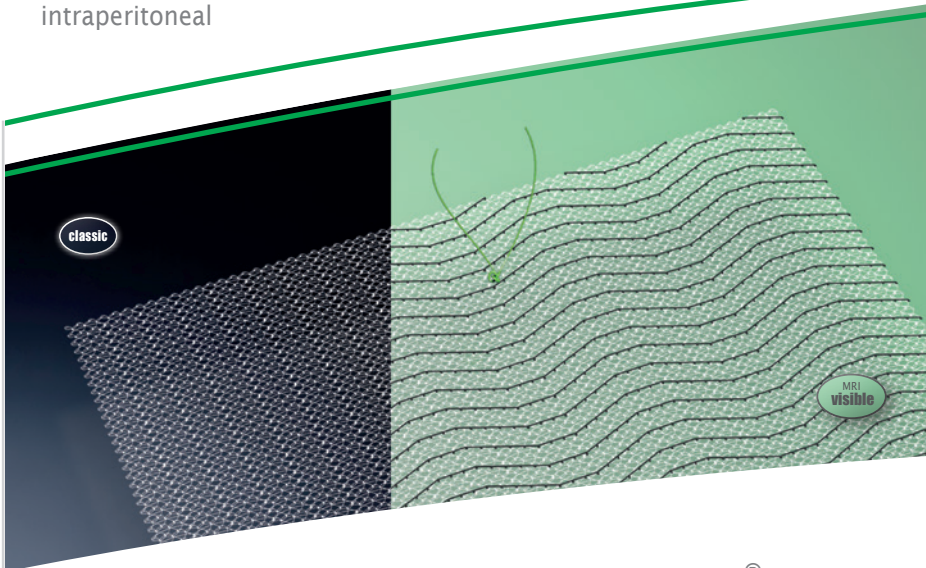


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Hernias

Abdominal Wall Hernia / Umbilical Hernia
intraperitoneal



DynaMesh®-IPOM implants are designed for soft tissue reinforcement and soft tissue bridging of the fascial and connective tissue structures of the abdominal wall as part of surgical treatment for epigastric hernias, umbilical or incisional hernias, and parastomal hernias following ostomy surgery.

DynaMesh®-IPOM

Abdominal Wall Hernia

Recommended sizes for the surgical treatment of abdominal wall hernias.
When selecting the mesh size, ensure sufficient overlap!

DynaMesh®-IPOM	☉	d 12 cm round	IP070012F1	BX = 1 piece
			IP070012F3	BX = 3 pieces
	☐	10 cm x 15 cm	IP071015F1	BX = 1 piece
			IP071015F3	BX = 3 pieces
		15 cm x 15 cm	IP071515F1	BX = 1 piece
	15 cm x 20 cm	IP071515F3	BX = 3 pieces	
		IP071520F1	BX = 1 piece	
	20 cm x 20 cm	IP071520F3	BX = 3 pieces	
		IP072020F1	BX = 1 piece	
	20 cm x 25 cm	IP072025F1	BX = 1 piece	
	20 cm x 30 cm	IP072030F1	BX = 1 piece	
		IP072030F3	BX = 3 pieces	
	28 cm x 37 cm	IP072837F1	BX = 1 piece	
	30 cm x 30 cm	IP073030F1	BX = 1 piece	
	30 cm x 45 cm	IP073045F1	BX = 1 piece	

DynaMesh®-IPOM visible	30 cm x 30 cm	IP083030F1	BX = 1 piece
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Umbilical Hernia

Recommended sizes for the surgical treatment of umbilical hernias.
When selecting the mesh size, ensure sufficient overlap!

DynaMesh®-IPOM	☐	07 cm x 06 cm	IP070706F5	BX = 5 pieces
	☉	d 12 cm round	IP070012F1	BX = 1 piece
			IP070012F3	BX = 3 pieces
		☐	10 cm x 15 cm	IP071015F1
	IP071015F3			BX = 3 pieces
	15 cm x 15 cm		IP071515F1	BX = 1 piece
		IP071515F3	BX = 3 pieces	

Hernias

Abdominal Wall Hernia / Umbilical Hernia
intraperitoneal




DynaMesh®-IPOM

Use and Properties

Product	DynaMesh®-IPOM	DynaMesh®-IPOM visible
Field of application	abdominal wall hernia / umbilical hernia	
Surgical access	laparoscopic / open	
Surgical technique	IPOM	
Mesh position	intraperitoneal	
Fixation	sutures / tacks	
Green marker thread		●
PVDF barrier		●
Visible technology	●	●
Dual-component structure	PVDF monofilament > 85 % PP monofilament	
Biocompatibility		●
Ageing resistance		●
Dynamometry		●
Tear propagation resistance		●
No scar plate formation		●
Classification (Klinge's classification [8])		1a

DynaMesh®-IPOM implants have a parietal side and a visceral side.

The parietal side is identified by green-marked 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.

VI003xx	DynaMesh®-IPOM - Animation: Laparoscopic Repair of Incisional Hernia https://de.dyna-mesh.com/Vi003xx	
VI108en	DynaMesh®-IPOM - Animation: The 3 Key Aspects for DynaMesh®-IPOM (best practice example) https://de.dyna-mesh.com/Vi108en	
VI051xx	DynaMesh®-IPOM visible - Animation: 3D Implant Remodelling https://de.dyna-mesh.com/Vi051xx	

- Applies to all product sizes
- Does not apply

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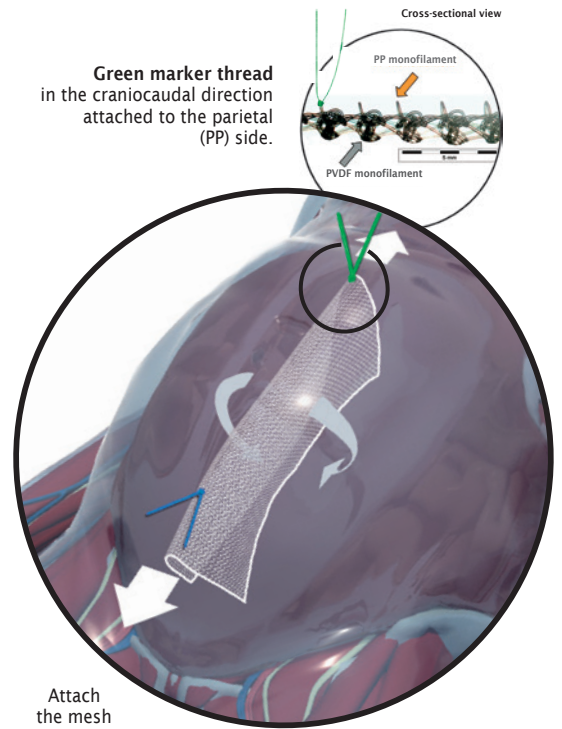
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Dual-Layer Composite Mesh

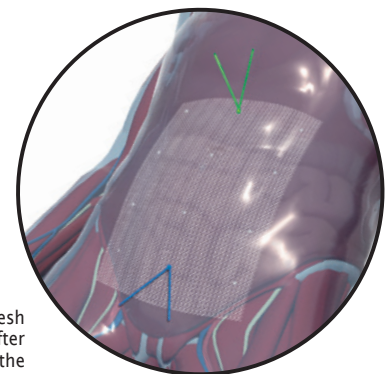
DynaMesh®-IPOM is a dual-component structure specifically developed for the IPOM technique and consists mainly of high-purity PVDF and a small proportion of polypropylene (PP). The parietal side (PP) promotes rapid and safe ingrowth into the abdominal wall. The PVDF layer on the visceral side forms a barrier to the intestines. PVDF demonstrably decreases the risks of adhesions compared with polypropylene [11] and thus reduces the risk of intestinal erosions. If implantation of several meshes is required (for example, the sandwich technique [9]), the open-pore structure means that implants can easily be overlapped.

Correct Orientation

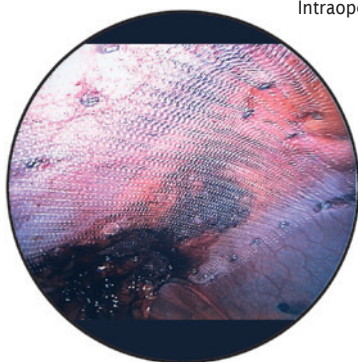
The parietal side (PP component) has a green marker thread and must face the abdominal wall. The marker thread is located on the front surface and simultaneously shows the correct direction of the elasticity in the craniocaudal direction.



Attach the mesh with added holding sutures under pre-tension



Fold-free mesh positioning after draining the pneumoperitoneum



Intraoperative view

Advantages for the Patients

The open-pore mesh construction facilitates the break-down of seroma and reduces scar plate formation.

Minimal mesh shrinkage is achieved and long-term surgical success with high patient comfort is ensured [9-14] through the open-pore and elastic mesh construction made from PVDF, which offers long-term stability.

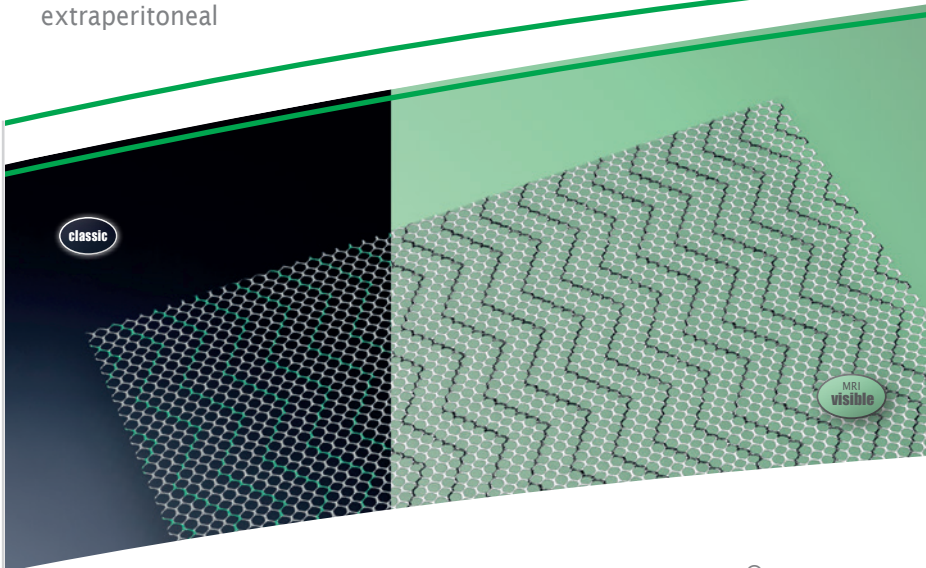
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Hernias

Abdominal Wall Hernia / Umbilical Hernia
extraperitoneal



DynaMesh®-CICAT implants are designed for soft tissue reinforcement and soft tissue bridging of the fascial and connective tissue structures of the abdominal wall as part of surgical treatment for epigastric hernias, umbilical or incisional hernias, and also as part of incisional hernia prevention.

DynaMesh®-CICAT

Abdominal Wall Hernia		Recommended sizes for the surgical treatment of abdominal wall hernias. When selecting the mesh size, ensure sufficient overlap! ^(P) Prophylaxis		
DynaMesh®-CICAT		d 10 cm round	PV090010F3	BX = 3 pieces
		10 cm x 10 cm	PV091010F3	BX = 3 pieces
		15 cm x 15 cm	PV091515F3	BX = 3 pieces
DynaMesh®-CICAT		longitudinal		
		10 cm x 35 cm ^(P)	PV091035F2	BX = 2 pieces
		15 cm x 25 cm	PV091525F2	BX = 2 pieces
			PV091525F5	BX = 5 pieces
		15 cm x 30 cm	PV091530F2	BX = 2 pieces
			PV091530F5	BX = 5 pieces
		18 cm x 40 cm	PV091840F2	BX = 2 pieces
		20 cm x 30 cm	PV092030F2	BX = 2 pieces
			PV092030F5	BX = 5 pieces
		30 cm x 45 cm	PV093045F1	BX = 1 piece
	PV093045F3	BX = 3 pieces		
45 cm x 60 cm	PV094560F1	BX = 1 piece		
DynaMesh®-CICAT		transversal		
		40 cm x 20 cm	PV094020F1	BX = 1 piece
DynaMesh®-CICAT visible		20 cm x 30 cm	PV162030F1	BX = 1 piece
		45 cm x 60 cm	PV164560F1	BX = 1 piece
Umbilical Hernia		Recommended sizes for the surgical treatment of umbilical hernias. When selecting the mesh size, ensure sufficient overlap!		
DynaMesh®-CICAT		05 cm x 06 cm	PV090506F5	BX = 5 pieces
		d 10 cm round	PV090010F3	BX = 3 pieces
		10 cm x 10 cm	PV091010F3	BX = 3 pieces
		15 cm x 15 cm	PV091515F3	BX = 3 pieces
DynaMesh®-CICAT visible		05 cm x 06 cm	PV160506F5	BX = 5 pieces

Hernias





Abdominal Wall Hernia / Umbilical Hernia
extraperitoneal

DynaMesh®-CICAT

Use and Properties

Product	DynaMesh®-CICAT	DynaMesh®-CICAT visible
Field of application	abdominal wall hernia / umbilical hernia	
Surgical access	open / mini-open / endoscopic / laparoscopic	
Surgical technique	all current extraperitoneal surgical techniques	
Mesh position	extraperitoneal (onlay, sublay and/or preperitoneal)	
Fixation	none / sutures / adhesives	
Green/black marking strips		●
Visible technology	●	●
Polymer (monofilament)	PVDF	
Biocompatibility	●	
Ageing resistance	●	
Dynamometry	●	
Tear propagation resistance	●	
No scar plate formation	●	
Classification (Klinge's classification [8])	1a	

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

VI008xx	DynaMesh®-CICAT - Animation: Retromuscular Alloplasty - Incisional Hernia Repair https://de.dyna-mesh.com/Vi008xx	
VI002en	DynaMesh®-CICAT - Animation: Umbilical Hernia Repair in PUMP Technique https://de.dyna-mesh.com/Vi002en	
VI002de	DynaMesh®-CICAT - Animation: Reparation der Nabelhernie in der PUMP Technik https://de.dyna-mesh.com/Vi002de	
VI009xx	DynaMesh®-CICAT - Animation: MILOS Technique https://de.dyna-mesh.com/Vi009xx	

● Applies to all product sizes
● Does not apply

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Hernias

Abdominal Wall Hernia / Umbilical Hernia
extraperitoneal

Clear-Cut Use

	Abdominal Wall Hernia			Umbilical Hernia	
	longitudinal	transversal		sublay	subfascial
Repair					
Prophylaxis (P)			—	—	—

Safe Positioning

A requirement for lasting surgical success is that the implant must be correctly positioned.

For this purpose, the implants are incorporated with **green orientation strips**. They must always run in the **craniocaudal** direction.

Safe Placement

The **antislip surface** ensures stable positioning of the mesh. It also facilitates handling and fixation.

The high effective porosity allows direct contact of the tissue layers through the mesh and promotes rapid incorporation.

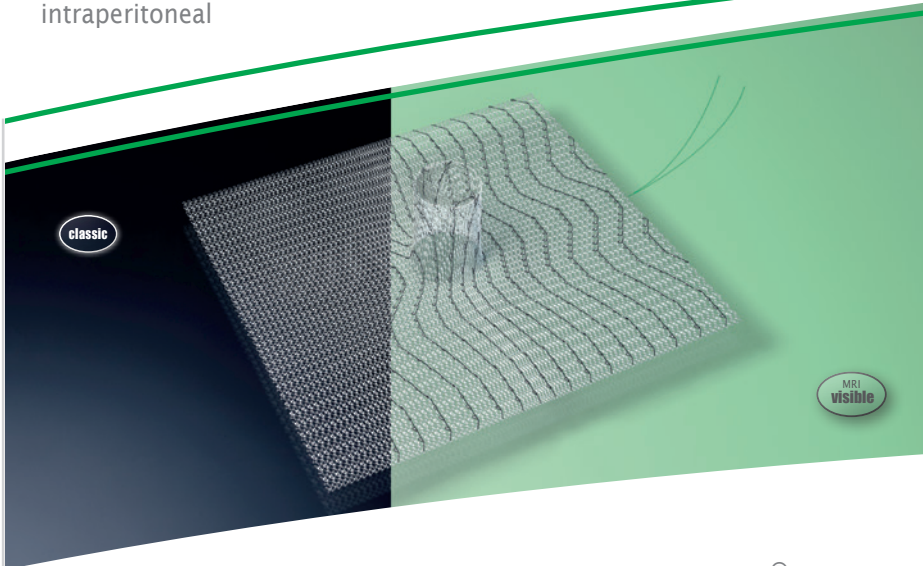
Please note: DynaMesh®-CICAT must not be placed intraperitoneally.

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Hernias
Parastomal Hernia
intraperitoneal



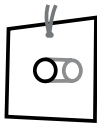
DynaMesh®-IPST implants are used in the prophylaxis and therapy of hernias and fascial defects in the abdominal wall after ostomy as well as to reinforce connective tissue structures and prevent prolapse of the diverted portion of the intestines.

DynaMesh®-IPST

Repair and Prevention of Parastomal Hernia

When selecting the mesh size, ensure sufficient overlap!

DynaMesh®-IPST



Funnel height: 4.0 cm

ø 02 cm x 15 cm x 15 cm (L4) IP072415F1 BX = 1 piece

Funnel height: 2.5 cm

ø 02 cm x 15 cm x 15 cm IP070215F1 BX = 1 piece

ø 02 cm x 25 cm x 25 cm IP070225F1 BX = 1 piece

ø 03 cm x 16 cm x 16 cm IP070316F1 BX = 1 piece

ø 04 cm x 17 cm x 17 cm IP070417F1 BX = 1 piece

DynaMesh®-IPST visible

Funnel height: 4.0 cm

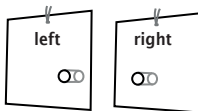
ø 02 cm x 15 cm x 15 cm (L4) IP082415F1 BX = 1 piece

Funnel height: 2.5 cm

ø 02 cm x 15 cm x 15 cm IP080215F1 BX = 1 piece

ø 03 cm x 16 cm x 16 cm IP080316F1 BX = 1 piece

DynaMesh®-IPST-D visible



Funnel height: 4.0 cm

ø 02 cm x 30 cm x 30 cm (L4) left IP082431F1 BX = 1 piece

ø 02 cm x 30 cm x 30 cm (L4) right IP082432F1 BX = 1 piece

Important: Side specificity (left-sided/right-sided stoma)

Repair of Parastomal Hernia

When selecting the mesh size, ensure sufficient overlap!

DynaMesh®-IPST-R



Funnel height: 3.5 cm

ø 03 cm x 16 cm x 16 cm (L3.5) IP103316F1 BX = 1 piece

DynaMesh®-IPST-R visible

Funnel height: 3.5 cm

ø 03 cm x 16 cm x 16 cm (L3.5) IP113316F1 BX = 1 piece

Use and Properties


Product	DynaMesh®- IPST (1) / -IPST visible (2)	DynaMesh®- IPST-D visible (3)	DynaMesh®- IPST-R (4) / -IPST-R visible (5)
Field of application	parastomal hernia (repair / prevention)		parastomal hernia (repair)
Surgical access	laparoscopic / open		
Surgical technique	IPOM		
Mesh position	intraperitoneal		
Fixation	sutures / tacks		
Green marker thread	●		
PVDF barrier	●		
Visible technology	● (1) / ● (2)	● (3)	● (4) / ● (5)
Dual-component structure	PVDF monofilament > 85 % PP monofilament		
Biocompatibility	●		
Ageing resistance	●		
Dynamometry	●		
Tear propagation resistance	●		
No scar plate formation	●		
Classification (Klinge's classification [8])	1 a		

All **DynaMesh®-IPST** implants are used both in laparoscopy and in open surgery. Common applications follow the intraperitoneal onlay mesh technique since the mesh is composed of different materials, which allows intraperitoneal application.

All **DynaMesh®-IPST** implants have a parietal and a visceral side. The parietal side is marked with green thread ends and consists of PVDF and a small portion of PP on the surface, while the visceral side consists of PVDF on the surface.

DynaMesh®-IPST-D visible implants are used for the repair as well as the prevention of parastomal hernia with particularly large overlap in cranial and medial direction with intraperitoneal mesh position (side specificity: left-sided / right-sided stoma).

DynaMesh®-IPST-R implants are used to repair the parastomal hernia without detachment of the stoma from the abdominal wall with intraperitoneal mesh position. The prefabricated slit facilitates placement of the mesh implant around the terminal segment of the bowel.

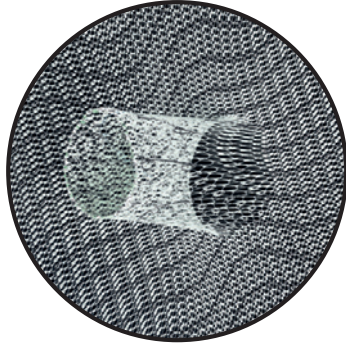
VI087xx	DynaMesh®-IPST - Animation: Parastomal Hernia https://de.dyna-mesh.com/Vi087xx	
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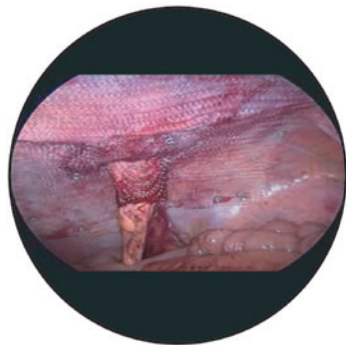
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- Applies to all product sizes
- Does not apply



Handling

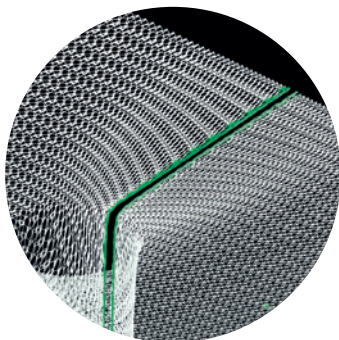
The implant is made from a single piece of mesh for a seamless junction with the elastic funnel. **DynaMesh®-IPST** is a **three-dimensional** preshaped implant providing excellent elasticity and flexibility - which facilitates stomaplasty preparation for the surgeon.



Elastic Funnel

The dual-layer composite structure promotes ingrowth into the abdominal wall while at the same time reducing the risks of adhesions on the visceral side.

The **elastic funnel** with no sharp selvedges leads to secure integration of the terminal segment of bowel and reliably prevents parastomal hernia formation [15,61].



Placement

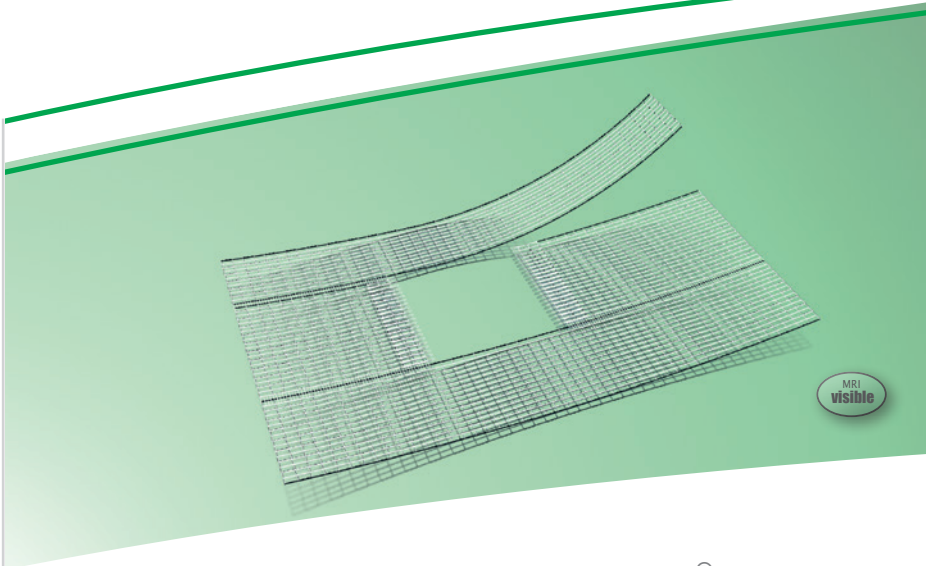
DynaMesh®-IPST-R can be placed without detaching the stoma from the abdominal wall.

The prefabricated slit makes it easier to place the mesh implant around the terminal section of the bowel.

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DynaMesh®-HIATUS implants are specially developed for prosthetic hiatoplasty and serve to achieve the long-lasting support and stabilisation of the diaphragm in the region of the oesophageal hiatus.

DynaMesh®-HIATUS

When selecting the mesh size, ensure sufficient overlap!

DynaMesh®-HIATUS	07 cm x 12 cm	PV610712F1	BX = 1 piece
		PV610712F3	BX = 3 pieces
	08 cm x 13 cm	PV610813F1	BX = 1 piece
		PV610813F3	BX = 3 pieces

VI014xx	DynaMesh®-HIATUS - Animation: Surgical Treatment of Hiatal Hernia in Laparoscopic Technique https://de.dyna-mesh.com/Vi014xx	
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Use and Properties

Product	DynaMesh®-HIATUS
Field of application	hiatal hernia
Surgical access	laparoscopic
Surgical technique	hiatal hernia surgery with implant
Fixation	sutures / adhesives / tacks*
Shape stability	●
Specially Warp-knitted Selvedges	●
Visible technology	●
Polymer (monofilament)	PVDF
Biocompatibility	●
Ageing resistance	●
Dynamometry	●
Tear propagation resistance	●
No scar plate formation	●
Classification (Klinge's classification [8])	1a

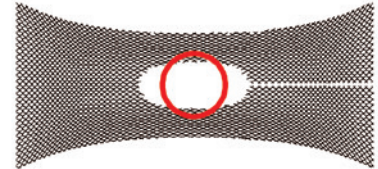
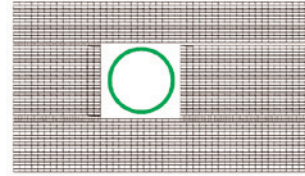
* Tacks may only be used if injury to the pericardium can be ruled out with certainty.

● Applies to all product sizes

Shape Stability Under Load

Conventional mesh structures deform under load. Constriction of the mesh in the region of the hiatus may reduce the distance between mesh implant and oesophagus, eventually causing mesh erosion.

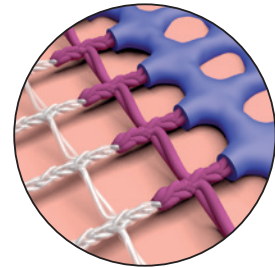
DynaMesh®-HIATUS is based on a sophisticated textile design with rectangular pores, which even under load retain a high degree of shape stability.



High Effective Porosity

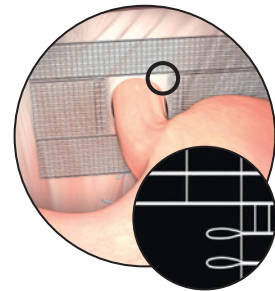
Mesh implants tend to shrink after incorporation in vivo.

DynaMesh®-HIATUS has a high effective porosity, which ensures that the mesh implant is thoroughly incorporated. During incorporation, the use of the proven and highly biocompatible PVDF polymer ensures that scarring is kept to a minimum. The good incorporation of the mesh implants combined with less scarring leads to minimisation of mesh shrinkage and permanently high flexibility of the incorporated implant.



Smooth, Warp-Knitted Selvedges

If the mesh does come into contact with the oesophagus in spite of all measures to prevent it, **DynaMesh®-HIATUS** has smooth selvedges that can minimise the danger of mesh erosion.



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DynaMesh® visible

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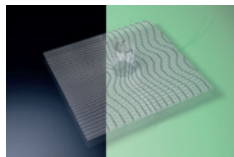
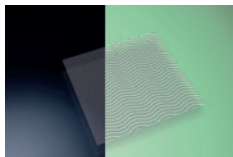
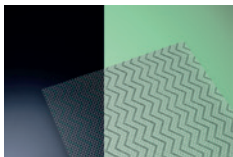
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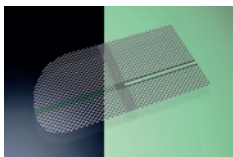
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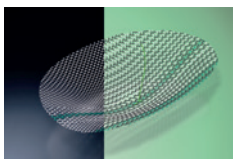
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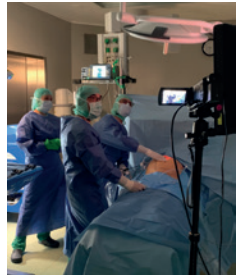
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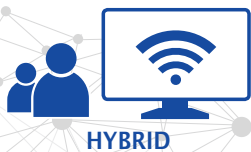
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