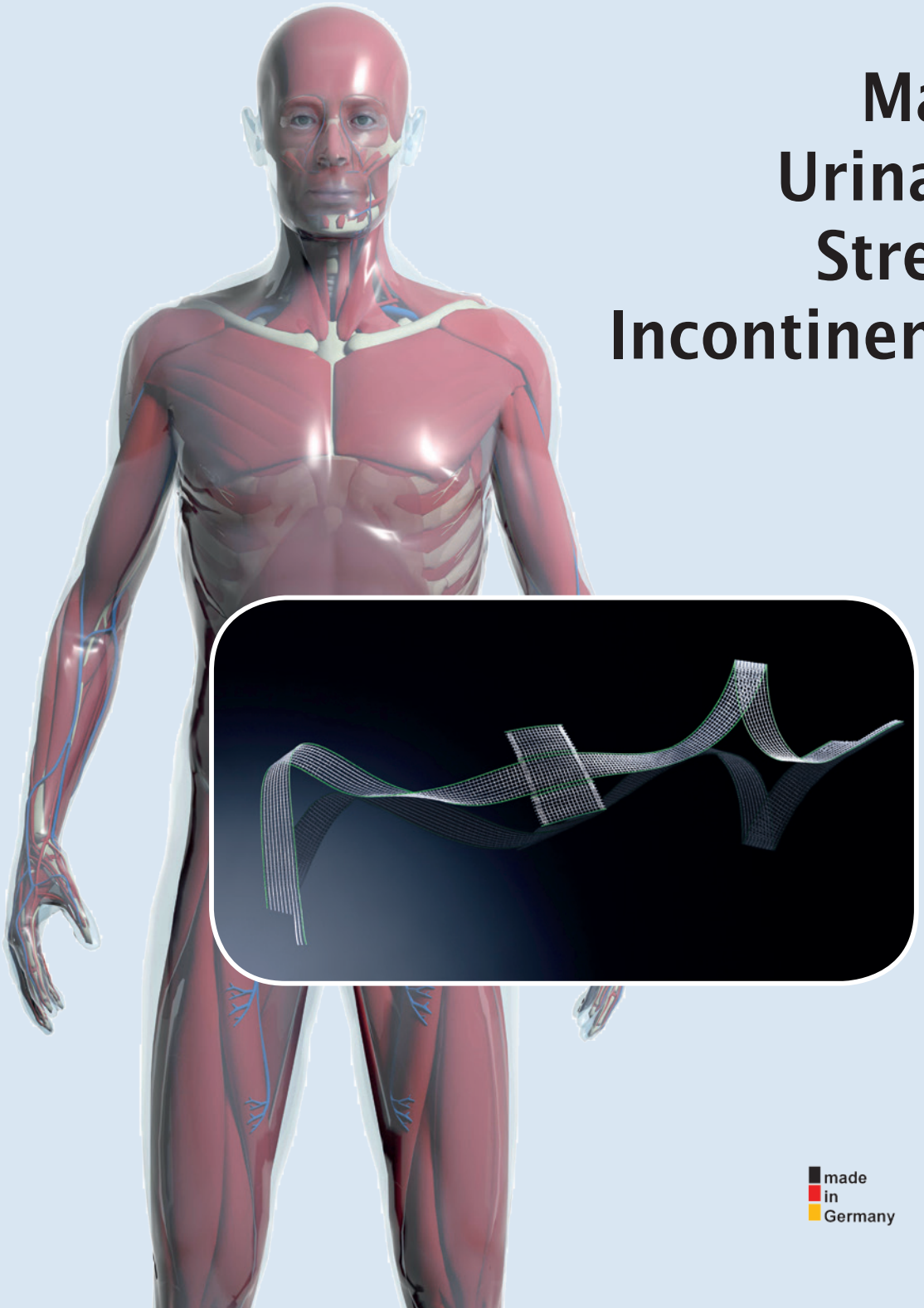
DynaMesh®

Tailored Solutions
for Pelvic Floor Surgery

Expert Technologies in **PVDF**



Male Urinary Stress Incontinence

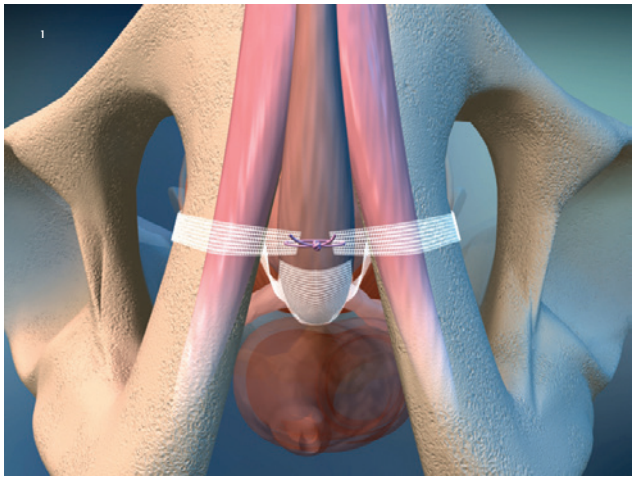
made
in
Germany

Application

Male Urinary Stress Incontinence:	Position	Access
DynaMesh®-PRM	- suburethral	- The implant is placed transobturatorically in outside-in technique.

DynaMesh®-PRM mesh implants are specially developed for the transobturatoric suburethral sling operation for the treatment of male stress urinary incontinence in light and medium heavy cases. The unique selvedges of **DynaMesh®-PRM** ensure a simple and atraumatic thread in and adjustment without irritating the surrounding tissue. The dimensional stable textile structure of polyvinylidene fluoride (PVDF) monofilaments with an outstanding effective porosity guarantees an excellent tissue growing-in.

The surgeon selects the method of surgery and final position of the sling depending on her/his preference and the instruments being used. These instruments are procured separately.



DynaMesh®-PRM suburethral

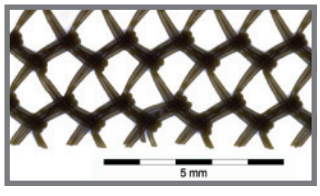
[1] after implantation (schematic illustration)

Normally, the mesh implant is inserted through a perineal access. The bulbospongiosus muscle is divided in the midline and the urethral bulb is detached from the fibrous nucleus until the urethral bulb is mobile. The tape is inserted transobturatorically with a tunneler. The central mesh part is fixed to the mobile part of the urethral bulb using sutures. Tension on the tape draws the bulb in a cranial direction in the retrourethral space. When the tape is finally in position, a tunnel is formed with an overholt from the perineal wound to the incision site. The ends of the tape are pulled back and cut off at the level of the wound edges. To prevent the tape being displaced in the first weeks of wound healing, the ends of the tape are loosely tied together using a size 2-0 medium-term absorbable suture.
The user must be familiar with the technique involved in implanting a suburethral sling before fitting a **DynaMesh®-PRM**.

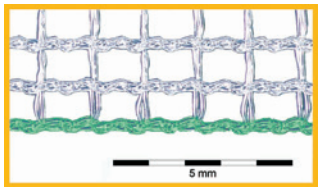
Optimal Textile Construction

DynaMesh® implants convince by their highly developed textile structure.

conventional PP mesh

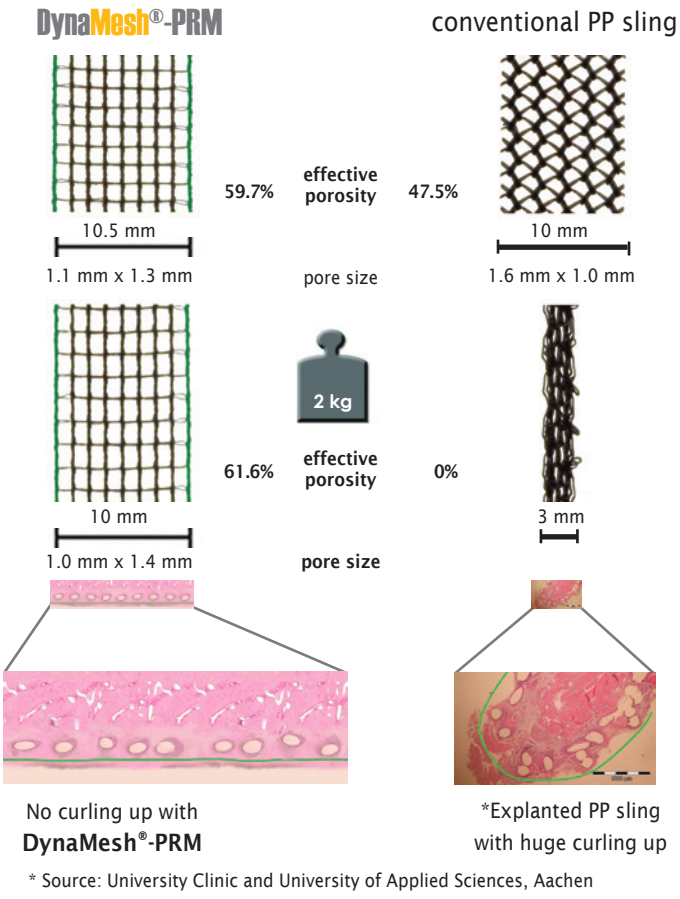


DynaMesh®-PRM



Atraumatic implant selvedges

DynaMesh®-PRM implant is not cut from a flat mesh. For this reason the smooth selvedges ensure a simple and atraumatic threading through the tissue and adjustment without irritating the surrounding tissue (no „saw teeth“).



No curling up with **DynaMesh®-PRM**

*Explanted PP sling with huge curling up

* Source: University Clinic and University of Applied Sciences, Aachen

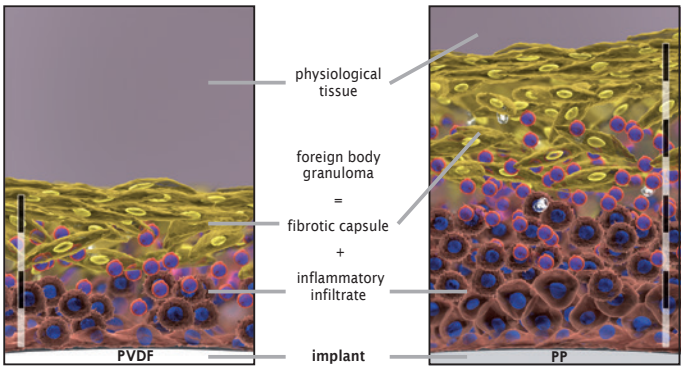
High effective porosity

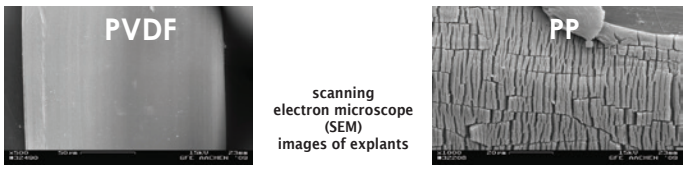
The optimal warp knitted structure of **DynaMesh®** leads to high effective porosity. This secures an excellent incorporation and considerably reduces foreign body reaction. The elasticity of the implant is postoperatively maintained.[4)]

No curling up with DynaMesh®-PRM
High form stability at defined elasticity

The dynamometry is exactly adjusted to the fields of application. At defined elasticity, they are stable enough to perfectly strengthen the anatomical structures and to shrink minimally only.[2)]

Especially under tension the high effective porosity persists because the mesh only stretches (in a defined way) lengthwise while width does not change.[1) 4)]





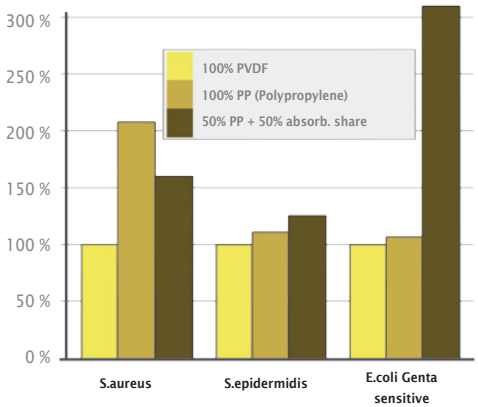
scanning electron microscope (SEM) images of explants

Excellent Material: PVDF

Less Foreign Body Reaction
The minimized foreign body reaction reliably prevents from bridging leading to highest patient comfort. [6)]

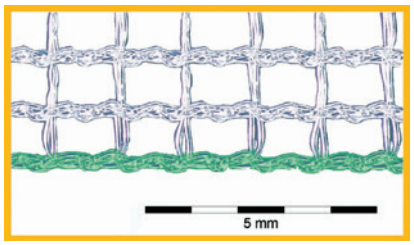
Superior Ageing Resistance
After many years of application in various surgical disciplines the high performance polymer PVDF has proven its worth compared to PP: Enduring high preservation of surface integrity and fibre stability leading to long term patient safety. [3) 7) 8)]

Reduced Bacterial Adherence
During a recent investigational study of the University Hospital Aachen cultures of microbial strains of relevant germs have been given onto different mesh material.
The fluorine essence measure afterwards showed a marginal quantity of germs adhering on meshes made from pure PVDF. The risk of infection considerably decreases at reduced bacterial adherence. [5)]



Technical Data

DynaMesh®-PRM



material:	100% polyvinylidene fluoride monofilament	
tension force:	0 kg	2 kg
pore size:	1.1 mm x 1.3 mm	1.0 mm x 1.4 mm
effective porosity:	59.7 %	61.6 %
width of sling:	11 mm	10.5 mm

References:

[1] **Göretzlehner, U.**: „PVDF as an implant material in urogynaecology“ (BIOmaterialien, 2007, German language)

[2] **Klinge, U. et al**: „Demands and properties of alloplastic implants for the treatment of stress urinary incontinence“ (Expert review of medical devices, 2007)

[3] **Klinge, U. et al**: „PVDF as a new polymer for the construction of surgical meshes“ (Biomaterials, 2002)

[4] **Mühl, T. et al**: „New objective measurement to characterize the porosity of textile implants“ (Journal of biomedical materials research. Part B Applied biomaterials, 2007)

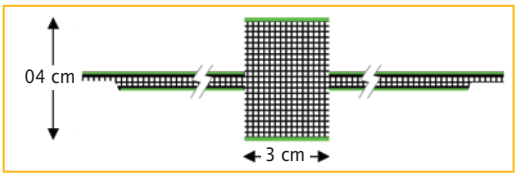
[5] **Klosterhalfen, B.**, Institute of Pathology, Hospital Düren, **Junge, K.** and **Klinge, U.**, University Hospital Aachen “Comparison of bacterial adherences” (2010)

[6] **Klosterhalfen, B.**, Institute of Pathology, Hospital Düren “Foreign Body Reaction” (2010)

[7] **Klink, C.D. et al.** „Comparison of long-term biocompatibility of PVDF and PP meshes.” (Journal of Investigative Surgery, 2011)

[8] **Laroche, G. et al.** „Polyvinylidene Fluoride Monofilament Sutures: Can they be used safely for long-term anastomoses in the thoracic aorta?” (International Society of Artifical Organs, 1995)

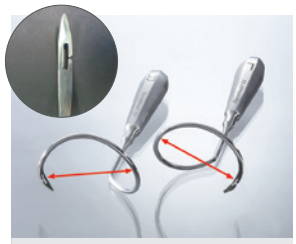
Delivery Program



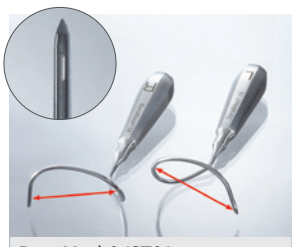
DynaMesh®-PRM	04 cm x 03 cm	PV330453F1	Unit = 1 pc.
DynaMesh®-PRM visible	04 cm x 03 cm	PV730453F1	Unit = 1 pc.

Reusable Instruments:

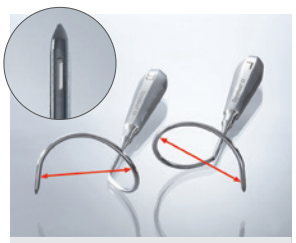
Made from medical grade stainless steel



DynaMesh®-IST03
Surgical instrument
d 5 cm
REF IST03F1
Unit = 1 set (l + r)



DynaMesh®-IST01
Surgical instrument
d 6 cm
REF IST01F1
Unit = 1 set (l + r)



DynaMesh®-IST02
Surgical instrument
d 7 cm
REF IST02F1
Unit = 1 set (l + r)

www.dyna-mesh.com

hergestellt durch / manufactured by /
fabriqué par / fabricado por / fabbricato da

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