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### **Product introduction**

# Uniform fixation<sup>1,†,‡</sup> – faster placement.<sup>2,§,Ω</sup>

Now available in a comprehensive range of sizes to fit all inguinal and ventral hernia defects,<sup>2-4,§,††,‡‡</sup> the self-anchoring grips used in the ProGrip™ mesh family provide a vast constellation of uniform fixation points across the entire mesh surface.<sup>1,†,‡</sup>

### Polylactic acid (PLA) resorbable microgrips

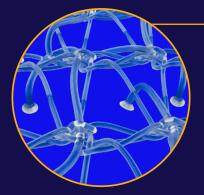
support good tissue integration 5,88 and prevent the mesh from shifting during placement 2,8,11

### Immediate gripping

across the mesh surface facilitates easy positioning<sup>2,4,6</sup> and faster placement<sup>2,§, $\Omega$ </sup> of the mesh

#### Trimmable to different sizes

to meet your varying procedural needs $^{3,7,8,\dagger,\Omega\Omega}$  – without impacting mechanical characteristics $^{3,\$,\Omega\Omega}$ 



#### Mesh transparency

aids visualization of underlying anatomic structures<sup>2,3,8,††</sup>

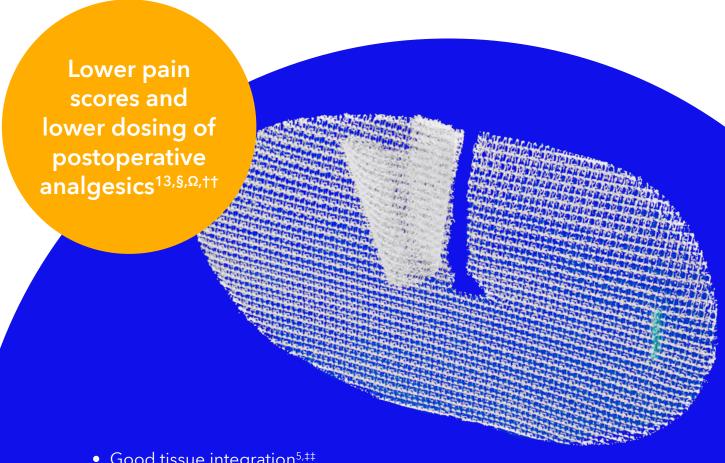
†Based on benchtop data, not necessarily indicative of human clinical outcomes. ‡The technique used to fixate the mesh (suture and/or tacks) is left up to the surgeon. The textile self-gripping feature makes it possible to position the mesh without fixation, depending on the size of the defect, the hernia position, and the quality of the anatomical structures. §Based on preclinical data, not necessarily indicative of human clinical outcomes. QCompared to flat sheet meshes. Based on feedback from 6 answers, 5 surgeons (83%), conducted in lab setting with cadaver. Surgeons compensated. ‡‡Applicable to PP1515G, PP2015G, PP3020G, PP3030G, PP4030G. §\$Based on animal study, not necessarily indicative of human clinical outcomes. QQIf a pre-cut mesh is trimmed, special care should be taken to preserve the sewing to limit the risk of recurrence. If a pre-cut mesh is trimmed, the green marking any no longer be present, compromising its function.

Risk statement: Mesh complications may include but are not limited to acute and chronic pain, extrusion/erosion, hematoma, infection, inflammation, recurrence, and/or seroma. See full risk statements on last page.

### Features and benefits

### Big advantages for your inguinal hernia repairs.

The uniform fixation<sup>1,†,‡</sup> of ProGrip<sup>™</sup> self-gripping polypropylene mesh gives you the confidence of positive clinical outcomes expressed in terms of low hernia recurrence rates and improved patient quality of life. 9-12,8



- Good tissue integration<sup>5,‡‡</sup>
- Reduced need for additional fixation<sup>3,10-12,††</sup>
- Prevents shifting of the mesh during placement<sup>2,§§,ΩΩ</sup>
- Significantly shorter procedure times than sutured mesh<sup>10,13,14,§</sup>

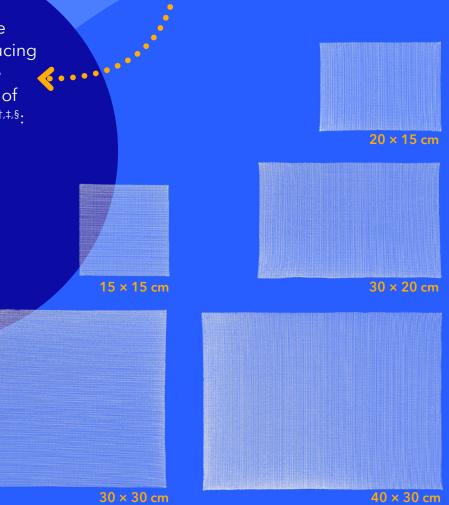
†Based on benchtop data, not necessarily indicative of human clinical outcomes. ‡The technique used to fixate the mesh (suture and/or tacks) is left up to

### Features and benefits

## Expanding to meet all of your ventral hernia repair needs

Gain the flexibility you've been waiting for. Introducing five large polypropylene mesh sizes to fit all sizes of ventral hernia defects<sup>2-4,†,‡,§</sup>:

- 15 × 15 cm
- 20 × 15 cm
- 30 × 20 cm
- 30 × 30 cm
- 40 × 30 cm



†Based on praclinical data, not necessarily indicative of human clinical outcomes. ‡Based on feedback from 6 surgeons, conducted in lab setting with cadaver. Surgeons compensated. §Applicable to PP1515G, PP2015G, PP3020G, PP3030G, PP4030G. ΩBased on benchtop data, not necessarily indicative of human clinical outcomes. ††The technique used to fixate the mesh (suture and/or tacks) is left up to the surgeon. ‡‡The textile self-gripping feature makes it possible to position the me without fixation, depending on the size of the defect, the hernia position, and the quality than antomical structures. §\$Based on feed from 6 answers, 5 surgeons (83%), conduct

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- Uniform fixation across the mesh surface<sup>1,Ω,††,‡‡</sup>
- Reduced need for additional fixation,<sup>15,Ω,‡‡</sup> eliminating associated pain<sup>6,8,10-12,14-16,‡‡</sup>
- Faster mesh placement (including fixation) compared to flat sheet meshes<sup>2,†,‡‡</sup>

### Clinical overview

### Clinical confidence. Economic efficiency.

ProGrip<sup>™</sup> polypropylene self-gripping mesh accommodates physicians in their surgical techniques and clinical cases through its enablement of extraperitoneal mesh placement, its quality of perioperative handling, and its compatibility with open surgical approaches.<sup>4,6,8,14</sup>

50% stronger peeling strength than fibrin sealant fixation at 8 weeks<sup>17,18,†,‡,§</sup> Position and place in less than

60
seconds<sup>19,†</sup>

Significantly shorter

procedure times than sutured mesh 10,13,14,†

| Product specifications                                   |                                  |
|--|----------------------------------|
| Mesh <sup>20</sup>                                       | 2-D textile structure with grips |
| Raw material <sup>20</sup>                               | Polypropylene (PP)               |
| Mono / multifilament <sup>20</sup>                       | Monofilament ∅0,10 mm            |
| Grips <sup>20</sup>                                      | Polylactic acid (PLA)            |
| Mono / multifilament <sup>20</sup>                       | Monofilament Ø0,15 mm            |
| Contribution to mesh fixation <sup>21</sup>              | > 8 weeks                        |
| Pore size <sup>22,Ω</sup>                                | 1.6 mm × 0.6 mm                  |
| Thickness <sup>22,Ω</sup>                                | 1.3 mm                           |
| Surface density (before grips absorption) $^{22,\Omega}$ | 76 g/m²                          |
| Surface density (after grips absorption) $^{23,\Omega}$  | 43 g/m²                          |
|  |                                  |

†Applicable to PP1208DL, PP1208DR, PP1509G. ‡Based on preclinical animal and benchtop studies, not necessarily indicative of human clinical outcomes. **§**ProGrip™ self-gripping polyester mesh has stronger peel strength than Bard™ soft mesh fixed to soft tissue using absorbable Baxter Tisseel™ glue at eight weeks. Accordingly, ProGrip™ self-gripping polypropylene mesh has stronger peel strength than Bard™ soft mesh fixed to soft tissue using absorbable Baxter Tisseel™ glue at eight weeks. **Q**Mean value measured on one batch. Values may differ slightly within and between batches, or by using an alternate testing method.

Risk statement: Mesh complications may include but are not limited to acute and chronic pain, extrusion/erosion, hematoma, infection, inflammation, recurrence, and/or seroma. See full risk statements on last page.

### **Ordering information**

## Sizes you need.

By putting more choice in surgeons' hands, the ProGrip™ self-gripping polypropylene mesh portfolio has you and your patients covered for hernia repairs large and small.

| ltem<br>number | Description  | Dimensions                           | Shape                                    | Side  | Qty. |
|----------------|--|--------------------------------------|--|-------|------|
| PP1208DL       | ProGrip <sup>™</sup> self-gripping<br>polypropylene mesh | 12 cm × 8 cm<br>(4.7 in × 3.0 in)    | Elliptical pre-cut<br>with flap, marking | Left  | 1    |
| PP1208DR       | ProGrip™ self-gripping<br>polypropylene mesh             | 12 cm × 8 cm<br>(4.7 in × 3.0 in)    | Elliptical pre-cut<br>with flap, marking | Right | 1    |
| PP1509G        | ProGrip™ self-gripping<br>polypropylene mesh             | 15 cm × 9 cm<br>(6.0 in × 3.5 in)    | Rectangular                              | N/A   | 1    |
| PP1515G        | ProGrip <sup>™</sup> self-gripping<br>polypropylene mesh | 15 cm × 15 cm<br>(5.9 in × 5.9 in)   | Square                                   | N/A   | 1    |
| PP2015G        | ProGrip™ self-gripping<br>polypropylene mesh             | 20 cm × 15 cm<br>(7.9 in × 5.9 in)   | Rectangular                              | N/A   | 1    |
| PP3020G        | ProGrip™ self-gripping<br>polypropylene mesh             | 30 cm × 20 cm<br>(11.8 in × 7.9 in)  | Rectangular                              | N/A   | 1    |
| PP3030G        | ProGrip™ self-gripping<br>polypropylene mesh             | 30 cm × 30 cm<br>(11.8 in × 11.8 in) | Square                                   | N/A   | 1    |
| PP4030G        | ProGrip™ self-gripping<br>polypropylene mesh             | 40 cm × 30 cm<br>(15.7 in × 11.8 in) | Rectangular                              | N/A   | 1    |

Gain the confidence of a technology used, tested, and trusted globally.<sup>24-28</sup>

> With more than 5 million implants used in 27 countries, ProGrip<sup>™</sup> technology is trusted by surgeons worldwide to provide a secure hernia repair<sup>24-28</sup> – delivering the improved comfort and recovery<sup>24-28</sup> necessary to help your patients get moving again.

Inguinal risk statement (PP1208DL, PP1208DR, PP1509G): Mesh complications may include but are not limited to acute and chronic pain, extrusion/erosion, hematoma, infection, inflammation, recurrence, and/or seroma. ProGrip $^{\infty}$  self-gripping polypropylene mesh is not intended to be used for laparoscopic hernia repair. Do not place the mesh in direct contact with the viscera. Direct contact with the viscera may lead to risks of adhesions, fistula formation, and bowel obstruction. Do not implant the mesh in an intra-peritoneal position. When implanting in a pre-peritoneal site, the mesh shall be placed with the grips towards the muscle fascia with the mesh completely covered with peritoneum

Ventral risk statement (PP1515G, PP2015G, PP3020G, PP3030G, PP4030G): Mesh complications may include but are not limited to acute and chronic pain, extrusion/erosion, hematoma, infection, inflammation, recurrence, and/or seroma. The compatibility of ProGrip<sup>™</sup> self-gripping polypropylene mesh with trocars and laparoscopic instruments has not been established. Do not place the mesh in direct contact with the viscera. Direct contact with the viscera may lead to risks of adhesions, fistula formation, and bowel obstruction. Do not implant the mesh in an intra-peritoneal position. When implanting in a pre-peritoneal site, the mesh shall be placed with the grips towards the muscle fascia with the mesh completely covered with peritoneum

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inguinal hernia repair – fixation/no fixation. August 2022.

13. Kapischke M, Schulze H, Caliebe A. Self-fixating mesh for the Lichtenstein procedure—a prestudy. Langenbecks Arch Surg. 2010;395(4):317–322. 14. Pierides G, Scheinin T, Remes V, Hermunen K, Vironen J. Randomized comparison of self-fixating and sutured mesh in open inguinal hernia repair. Br J Surg. 2012;99(5):630–636. 15. Based on internal test report #43615CR123, Fixation information for ProGrip™ self-gripping polypropylene mesh in ventral hernia repair. September 2023. 16. Bruna Esteban M, Cantos Pallarés M, Artigues Sánchez De Rojas E. Use of adhesive mesh in hernicoplasty compared to the conventional technique. Results of a randomized prospective study. Cir Esp. 2010;88(4):253–258. 17. Based on internal preclinical study #MC2009-009CR006, Comparitive test of gripping power in pigs − Parietene™ ProGrip™ and Parietex™ ProGrip™ comparison at T0 for internal gripping test characterizations and at 8 weeks for in-vivo study. May 2010. 18. Based on internal test report #0902CR114, Preclinical study to evaluate the inflammatory response and self-gripping feature of ProGrip™ self-gripping polyester mesh when compared to a mesh without grips. October 2011. 19. Chastan P. Tension free open inguinal hernia repair using an innovative self-gripping semi-resorbable mesh. J Minim Access Surg. 2006; (2)(3):139–143. 20. Based on internal text report #TEX013e, Type GPL textile. February 2015. 21. Based on internal test report #MC2009-04CR2020 Parietxe ProGrip™ self-gripping polyering polyer #MC2009-004CR020, Parietex ProGrip<sup>™</sup> mesh self-gripping feature functional trial. May 2010. **22.** Based on internal test report #43615CR110c, ProGrip<sup>™</sup> self-gripping polypropylene mesh vs. ProGrip<sup>™</sup> self-gripping polyester mesh: Mesh physical & mechanical comparison – 510(k). December 2023. **23.** Based on internal test report #TEX-FP-073a, ProGrip <sup>™</sup> selfgripping polypropylene mesh finished product textile characterization without PLA grips or loops. September 2020. **24.** Based on internal report List of products manufactured in Trévoux by Sofradim Production. Volumes from 2007 to 2023. December 2023. **25.** Klobusicky, P, Hoskovec D. Reduction of chronic post-herniotomy pain and recurrence rate. Use of the anatomical self-gripping ProGrip™ laparoscopic mesh in TAPP hernia repair. Preliminary results of a prospective study. Wideochir Inne Tech Maloinwazyjne. 2015;10(3):373-381. **26.** Muysoms FE, Vanlander A, Ceulemans R, et al. A prospective, multicenter, observational study on quality of life after laparoscopic inguinal hernia repair with ProGrip™ laparoscopic, selffixating mesh according to the European Registry for Abdominal Wall Hernias Quality of Life Instrument. Surgery. 2016;160(5):1344-1357. 27. Birk D, Pardo CG. Self-gripping Parietene and Parietex ProGrip™ mesh laparoscopic hernia repair: have we found the ideal implant?. Surg Technol Int. 2012;22:93-100. 28. Bueno-Lledó J, Torregrosa A, Arguelles B, et al. ProGrip™ self-gripping mesh in Rives-Stoppa repair: Are there any differences in outcomes versus a retromuscular polypropylene mesh fixed with sutures? A "case series" study. Int J Surg Case Rep. 2017;34:60-64.

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