

GORE® SEAMGUARD®

Bioabsorbable Staple
Line Reinforcement

SEE THE DIFFERENCE IN STAPLE LINE REINFORCEMENT PRODUCTS

There are many properties of staple line reinforcement products to understand and evaluate when making a product choice. See the comparison below.

Staple line reinforcement product comparison

	GORE® SEAMGUARD® Bioabsorbable Staple Line Reinforcement	ETHICON ECHELON ENDOPATH® Staple Line Reinforcement	MEDTRONIC ENDO GIA® Reinforced Reload with TRI-STAPLE Technology	BAXTER PERI-STRIPS DRY® with VERITAS® Collagen Matrix Staple Line Reinforcement
Manufacturer	W. L. Gore & Associates	Ethicon, Inc.	Medtronic, Inc.	Baxter Healthcare Corporation
Material	Poly(glycolide:trimethylene carbonate) copolymer: <ul style="list-style-type: none">■ 67% polyglycolic acid (PGA)■ 33% trimethylene carbonate (TMC)	Two layers of polydioxanone film surround a layer of VICRYL® Material (copolymer of 90% glycolide and 10% L-lactide). The adhesive is composed of a mixture of water soluble alkylene oxide copolymers. ¹	100% PGA	Non-crosslinked bovine pericardium
Thickness	0.4 mm average	0.4 mm ¹	0.44 ²	0.45–1.26 mm ³
Complete absorption	6–7 months ⁴	4 months ¹	3.5 months ⁵	Degrades via inflammatory response followed by host collagen deposition, patient dependent ^{6–8}
Stapler attachment	Sleeve design held on by sutures	Adhesive composed of a mixture of water soluble alkylene oxide copolymers ¹	Preloaded on stapler, held by suture ²	Hydrogel attachment material ⁹
Tissue response	Slower degradation creates minimal inflammatory response, especially during early post-op time points which is the critical healing period: mild to moderate ^{2,9}	Material is visibly dispersed 14- and 21-days post-implantation in a porcine model. ¹⁰	Creates significantly higher inflammatory response at early post-op time points ²	Extensive inflammation at early post-op time point ⁹
Bariatric staple line reinforcement studies	> 35 ¹¹	None*	4*	10*
Leak rate per systematic review completed of 148 articles with 40,653 patients¹²	0.70% ¹² worldwide 0.39% ¹² in the U.S.	No data available	Product not included due to insufficient data ¹²	2.7% ¹² worldwide

* A literature search was performed by an Information Specialist in June, 2023 using the BIOSIS PREVIEWS® Database, EMBASE® Database and MEDLINE MEDLARS® Database. Limiters were: 10 years, English language, humans. Key words/phrases are on file.

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