

## Standard Terminology for Mesh Characteristics<sup>1,2</sup>:

<b>Area of Interstices (Area)</b>	Microporous < 100um ( < 0.008mm <sup>2</sup> )	Small 100-600um ( 0.008-0.28mm <sup>2</sup> )	Medium 600-1000um (0.28-0.79mm <sup>2</sup> )	Large 1000-2000um ( 0.79-3.14mm <sup>2</sup> )	Very Large >2000um (>3.14mm <sup>2</sup> )
<b>Filament Diameter</b>	Very Large >200um	Large 175-200um	Medium 150-175um	Small 125-150um	Very Small <125um
<b>Thickness</b>	Extra Thick >1.5mm	Thick 1.0-1.5mm	Medium 0.75-1.0mm	Thin 0.5-0.75mm	Very Thin <0.5mm
<b>Density</b>		Heavy-weight >90g/m <sup>2</sup>	Medium-weight 50-90g/m <sup>2</sup>	Light-weight 35-50g/m <sup>2</sup>	Ultra Light-weight <35g/m <sup>2</sup>

## Suitable Mechanical Properties for Hernia Repair Applications<sup>1,2</sup>:

Suture retention strength	<b>&gt; 20N</b>
Tear resistance	<b>&gt; 20N</b>
Ball burst strength	<b>&gt; 50N/cm</b>
Strain (at stress of 16N/cm)	<b>10-30%</b>

1. Deeken CR, Abdo MS, Frisella MM, Matthews BD  
Physicomechanical evaluation of polypropylene, polyester, and polytetrafluoroethylene meshes for inguinal hernia repair.  
J Am Coll Surg (2011) Jan; 212(1):68-79
2. Deeken CR, Abdo MS, Frisella MM, Matthews BD  
Physicomechanical evaluation of absorbable and nonabsorbable barrier composite meshes for laparoscopic ventral hernia repair.  
Surg Endosc (2011) 25:1541-1552

## Uncoated Meshes:

MESH TYPE	Area of Interstices (mm <sup>2</sup> )	Filament Diameter (μm)	Thickness (mm)	Density (g/m <sup>2</sup> )	Parallel Suture Retention Strength (N)	Perpendicular Suture Retention Strength (N)	Parallel Tear Resistance (N)	Perpendicular Tear Resistance (N)	Ball Burst Strength (N/cm)	Strain at 16N/cm (%)
Bard™ Mesh	Medium	Large	Thin	Heavy	> 20N	> 20N	> 20N	> 20N	> 50N/cm	10-30%
Parietex™ Flat Sheet TEC	Large	Very Large	Thin	Heavy	> 20N	> 20N	> 20N	> 20N	> 50N/cm	< 10%
PROLENE™	Medium	Small	Thin	Medium	> 20N	> 20N	> 20N	> 20N	> 50N/cm	< 10%
ProLite™	Medium	Medium	Very Thin	Medium	> 20N	> 20N	> 20N	> 20N	> 50N/cm	10-30%
C-QUR Lite™ "Large"	Medium	Medium	Very Thin	Heavy (PP=Medium)	> 20N	> 20N	> 20N	> 20N	> 50N/cm	10-30%
ProLite™ Ultra™	Medium	Very Small	Very Thin	Light	> 20N	> 20N	< 20N	< 20N	> 50N/cm	10-30%
C-QUR Lite™ "Small"	Medium	Very Small	Very Thin	Medium (PP=Light)	> 20N	> 20N	< 20N	< 20N	> 50N/cm	10-30%
ULTRAPRO™	Very Large	Very Small	Thin	Medium	< 20N	< 20N	< 20N	< 20N	< 50N/cm	10-30%
INFINIT™ Mesh	Very Large	Very Small	Very Thin	Medium	> 20N	> 20N	< 20N	< 20N	< 50N/cm	n/a

## Permanent and Absorbable Barrier Meshes:

MESH TYPE	Area of Interstices (mm <sup>2</sup> )	Filament Diameter (µm)	Thickness (mm)	Density (g/m <sup>2</sup> )	Parallel Suture Retention Strength (N)	Perpendicular Suture Retention Strength (N)	Parallel Tear Resistance (N)	Perpendicular Tear Resistance (N)	Ball Burst Strength (N/cm)	Strain at 16N/cm (%)
DUALMESH® Biomaterial	Microporous	N/A	Thick	Heavy	> 20N	> 20N	> 20N	> 20N	> 50N/cm	10-30%
Bard™ Composix™ E/X	Medium	Large	Medium	Heavy (PP=Heavy)	> 20N	> 20N	> 20N	> 20N	> 50N/cm	10-30%
Bard™ Sepramesh™ IP Composite	Medium	Medium	Medium	Heavy	> 20N	> 20N	> 20N	> 20N	> 50N/cm	< 10%
C-QUR™ Mesh	Medium	Medium	Thin	Heavy (PP=Medium)	> 20N	> 20N	> 20N	> 20N	> 50N/cm	< 10%
C-QUR™ Mesh without coating (ProLite™)	Medium	Medium	Very Thin	Medium	> 20N	> 20N	> 20N	> 20N	> 50N/cm	10-30%
Bard™ Composix™ L/P	Very Large	Medium	Thin	Heavy (PP=Light)	> 20N	> 20N	> 20N	< 20N	> 50N/cm	10-30%
Parietex™ Composite	Very Large	Medium	Medium	Heavy	> 20N	> 20N	< 20N	< 20N	< 50N/cm	< 10%
PROCEED™	Very Large	Very Small	Thin	Heavy	> 20N	> 20N	< 20N	< 20N	> 50N/cm	< 10%