Strength Measurement Test Results
for Competitive Hernia Repair Devices

Ball Burst Strength
Competitive Test Data

Suture Pullout Strength
Competitive Test Data
Ball Burst Strength vs Minimum Pore Size

Literature suggests the strength requirement for bridging ventral hernia repair has an abdominal wall surface tension of 32 N/cm\(^1,2,3\). A calculation is used to convert the 32 N/cm into a load of 255 N which is measured using the international standard ball burst test method for material strength, ASTM D3787. Please select a competitor to compare test data.

NOTE: The strength measurement for GORE® SYNECOR Biomaterial is for the knit component only. For all other products, measurement was conducted for the full construct out of the box. For the composite mesh products, the strength measurement may be lower once the respective bioabsorbable components are degraded.

Studies have shown that increasing pore size from medium to very large had improved mechanical strength of tissue ingrowth\(^5\) and reduced scar plate formation\(^6\).
Ball Burst Strength vs Minimum Pore Size

Literature suggests the strength requirement for bridging ventral hernia repair has an abdominal wall surface tension of 32 N/cm\(^1,2,3\). A calculation is used to convert the 32 N/cm into a load of 255 N which is measured using the international standard ball burst test method for material strength, ASTM D3787. Please select a competitor to compare test data.

**NOTE:** The strength measurement for GORE® SYNECOR Biomaterial is for the knit component only. For all other products, measurement was conducted for the full construct out of the box. For the composite mesh products, the strength measurement may be lower once the respective bioabsorbable components are degraded.

Studies have shown that increasing pore size from medium to very large had improved mechanical strength of tissue ingrowth\(^5\) and reduced scar plate formation\(^6\).
Ball Burst Strength vs Minimum Pore Size

Literature suggests the strength requirement for bridging ventral hernia repair has an abdominal wall surface tension of 32 N/cm$^1,2,3$. A calculation is used to convert the 32 N/cm into a load of 255 N which is measured using the international standard ball burst test method for material strength, ASTM D3787. Please select a competitor to compare test data.

NOTE: The strength measurement for GORE® SYNECOR Biomaterial is for the knit component only. For all other products, measurement was conducted for the full construct out of the box. For the composite mesh products, the strength measurement may be lower once the respective bioabsorbable components are degraded.

Studies have shown that increasing pore size from medium to very large had improved mechanical strength of tissue ingrowth$^5$ and reduced scar plate formation$^6$. 

---

**NOTE:** The strength measurement for GORE® SYNECOR Biomaterial is for the knit component only. For all other products, measurement was conducted for the full construct out of the box. For the composite mesh products, the strength measurement may be lower once the respective bioabsorbable components are degraded.

Studies have shown that increasing pore size from medium to very large had improved mechanical strength of tissue ingrowth$^5$ and reduced scar plate formation$^6$. 

---

**PHASIX Mesh**

**ULTRAPRO™ Mesh**

**BARD® Soft Mesh**

**Parietex™ Optimized Composite Mesh**

**Symbotex™ Composite Mesh**

---

The macroporous knit of dense, monofilament PTFE fibers provide optimum strength for a durable, single-stage repair.
Ball Burst Strength vs Minimum Pore Size

Literature suggests the strength requirement for bridging ventral hernia repair has an abdominal wall surface tension of 32 N/cm\(^1,2,3\). A calculation is used to convert the 32 N/cm into a load of 255 N which is measured using the international standard ball burst test method for material strength, ASTM D3787. **Please select a competitor to compare test data.**

NOTE: The strength measurement for GORE® SYNECOR Biomaterial is for the knit component only. For all other products, measurement was conducted for the full construct out of the box. For the composite mesh products, the strength measurement may be lower once the respective bioabsorbable components are degraded.

Studies have shown that increasing pore size from medium to very large had improved mechanical strength of tissue ingrowth\(^5\) and reduced scar plate formation\(^6\).
Ball Burst Strength vs Minimum Pore Size

Literature suggests the strength requirement for bridging ventral hernia repair has an abdominal wall surface tension of 32 N/cm\(^1,2,3\). A calculation is used to convert the 32 N/cm into a load of 255 N which is measured using the international standard ball burst test method for material strength, ASTM D3787. Please select a competitor to compare test data.

NOTE: The strength measurement for GORE\textsuperscript{®} SYNECOR Biomaterial is for the knit component only. For all other products, measurement was conducted for the full construct out of the box. For the composite mesh products, the strength measurement may be lower once the respective bioabsorbable components are degraded.

Studies have shown that increasing pore size from medium to very large had improved mechanical strength of tissue ingrowth\(^5\) and reduced scar plate formation\(^6\).
Ball Burst Strength vs Minimum Pore Size

Literature suggests the strength requirement for bridging ventral hernia repair has an abdominal wall surface tension of 32 N/cm\(^1\,\text{,}^2\,\text{,}^3\). A calculation is used to convert the 32 N/cm into a load of 255 N which is measured using the international standard ball burst test method for material strength, ASTM D3787. **Please select a competitor to compare test data.**

- **GORE® SYNECOR Biomaterial**: The macroporous knit of dense, monofilament PTFE fibers provide optimum strength for a durable, single-stage repair.
- **PHASIX Mesh**: Potential tensile strength needed for obese patients
- **ULTRAPRO™ Mesh**: Reducing risk of recurrence
- **Symbotex™ Composite Mesh**: Improving tissue response
- **BARD® Soft Mesh**: Equivalence of 47.8 N/cm LINE
- **Parietex™ Optimized Composite Mesh**: Equivalence of 32 N/cm LINE

**NOTE:** The strength measurement for GORE® SYNECOR Biomaterial is for the knit component only. For all other products, measurement was conducted for the full construct out of the box. For the composite mesh products, the strength measurement may be lower once the respective bioabsorbable components are degraded.

Studies have shown that increasing pore size from medium to very large had improved mechanical strength of tissue ingrowth\(^5\) and reduced scar plate formation\(^6\).
Ball Burst Strength vs Minimum Pore Size

Literature suggests the strength requirement for bridging ventral hernia repair has an abdominal wall surface tension of 32 N/cm\(^1\)\(^2\)\(^3\). A calculation is used to convert the 32 N/cm into a load of 255 N which is measured using the international standard ball burst test method for material strength, ASTM D3787. Please select a competitor to compare test data.

The macroporous knit of dense, monofilament PTFE fibers provide optimum strength for a durable, single-stage repair.

Potential tensile strength needed for obese patients

REDUCING RISK OF RECURRENCE

IMPROVING TISSUE RESPONSE

NOTE: The strength measurement for GORE® SYNECOR Biomaterial is for the knit component only. For all other products, measurement was conducted for the full construct out of the box.

For the composite mesh products, the strength measurement may be lower once the respective bioabsorbable components are degraded.

Studies have shown that increasing pore size from medium to very large had improved mechanical strength of tissue ingrowth\(^5\) and reduced scar plate formation\(^6\).
Suture Pullout Strength vs Minimum Pore Size

Please select a competitor to compare test data.

NOTE: The strength measurement for GORE® SYNECOR Biomaterial is for the knit component only. For all other products, measurement was conducted for the full construct out of the box. For the composite mesh products, the strength measurement may be lower once the respective bioabsorbable components are degraded.

Studies have shown that increasing pore size from medium to very large had improved mechanical strength of tissue ingrowth⁵ and reduced scar plate formation⁶.

NOTE: The strength measurement for GORE® SYNECOR Biomaterial is for the knit component only. For all other products, measurement was conducted for the full construct out of the box. For the composite mesh products, the strength measurement may be lower once the respective bioabsorbable components are degraded.

Studies have shown that increasing pore size from medium to very large had improved mechanical strength of tissue ingrowth⁵ and reduced scar plate formation⁶.
Suture Pullout Strength vs Minimum Pore Size

Please select a competitor to compare test data.

NOTE: The strength measurement for GORE® SYNECOR Biomaterial is for the knit component only. For all other products, measurement was conducted for the full construct out of the box. For the composite mesh products, the strength measurement may be lower once the respective bioabsorbable components are degraded.

Studies have shown that increasing pore size from medium to very large had improved mechanical strength of tissue ingrowth and reduced scar plate formation.

The macroporous knit of dense, monofilament PTFE fibers provide optimum strength for a durable, single-stage repair.

NOTE: The strength measurement for GORE® SYNECOR Biomaterial is for the knit component only. For all other products, measurement was conducted for the full construct out of the box. For the composite mesh products, the strength measurement may be lower once the respective bioabsorbable components are degraded.

Studies have shown that increasing pore size from medium to very large had improved mechanical strength of tissue ingrowth and reduced scar plate formation.
Suture Pullout Strength vs Minimum Pore Size

Please select a competitor to compare test data.

NOTE: The strength measurement for GORE® SYNECOR Biomaterial is for the knit component only. For all other products, measurement was conducted for the full construct out of the box. For the composite mesh products, the strength measurement may be lower once the respective bioabsorbable components are degraded. Studies have shown that increasing pore size from medium to very large had improved mechanical strength of tissue ingrowth and reduced scar plate formation.

The macroporous knit of dense, monofilament PTFE fibers provide optimum strength for a durable, single-stage repair.

Symbotex™ Composite Mesh

PHASIX Mesh

Parietex™ Optimized Composite Mesh

BARD® Soft Mesh

ULTRAPRO™ Mesh

58 N
1.59 mm

33 N
1.03 mm

Improving tissue response
Reducing risk of recurrence

NOTE: The strength measurement for GORE® SYNECOR Biomaterial is for the knit component only. For all other products, measurement was conducted for the full construct out of the box. For the composite mesh products, the strength measurement may be lower once the respective bioabsorbable components are degraded. Studies have shown that increasing pore size from medium to very large had improved mechanical strength of tissue ingrowth and reduced scar plate formation.
NOTE: The strength measurement for GORE® SYNECOR Biomaterial is for the knit component only. For all other products, measurement was conducted for the full construct out of the box. For the composite mesh products, the strength measurement may be lower once the respective bioabsorbable components are degraded.

Studies have shown that increasing pore size from medium to very large had improved mechanical strength of tissue ingrowth and reduced scar plate formation.

The macroporous knit of dense, monofilament PTFE fibers provide optimum strength for a durable, single-stage repair.
Suture Pullout Strength vs Minimum Pore Size

Please select a competitor to compare test data.

NOTE: The strength measurement for GORE® SYNECOR Biomaterial is for the knit component only. For all other products, measurement was conducted for the full construct out of the box.

For the composite mesh products, the strength measurement may be lower once the respective bioabsorbable components are degraded.

Studies have shown that increasing pore size from medium to very large had improved mechanical strength of tissue ingrowth and reduced scar plate formation.

The macroporous knit of dense, monofilament PTFE fibers provide optimum strength for a durable, single-stage repair.
Suture Pullout Strength vs Minimum Pore Size

Please select a competitor to compare test data.

NOTE: The strength measurement for GORE® SYNECOR Biomaterial is for the knit component only. For all other products, measurement was conducted for the full construct out of the box. For the composite mesh products, the strength measurement may be lower once the respective bioabsorbable components are degraded.

Studies have shown that increasing pore size from medium to very large had improved mechanical strength of tissue ingrowth² and reduced scar plate formation⁶.

The macroporous knit of dense, monofilament PTFE fibers provide optimum strength for a durable, single-stage repair.

- **Symbotex™ Composite Mesh**
  - SUTURE PULLOUT STRENGTH: 40 N
  - MIN PORE SIZE: 1.86 mm

- **ULTRAPRO™ Mesh**
  - SUTURE PULLOUT STRENGTH: 58 N
  - MIN PORE SIZE: 1.59 mm

- **BARD® Soft Mesh**
  - SUTURE PULLOUT STRENGTH: 40 N
  - MIN PORE SIZE: 1.86 mm

- **PHASIX Mesh**
  - SUTURE PULLOUT STRENGTH: 40 N
  - MIN PORE SIZE: 1.86 mm

- **Parietex™ Optimized Composite Mesh**
  - SUTURE PULLOUT STRENGTH: 40 N
  - MIN PORE SIZE: 1.86 mm

**NOTE:** The strength measurement for GORE® SYNECOR Biomaterial is for the knit component only. For all other products, measurement was conducted for the full construct out of the box. For the composite mesh products, the strength measurement may be lower once the respective bioabsorbable components are degraded.

Studies have shown that increasing pore size from medium to very large had improved mechanical strength of tissue ingrowth² and reduced scar plate formation⁶.
Suture Pullout Strength vs Minimum Pore Size

Please select a competitor to compare test data.

NOTE: The strength measurement for GORE® SYNECOR Biomaterial is for the knit component only. For all other products, measurement was conducted for the full construct out of the box. For the composite mesh products, the strength measurement may be lower once the respective bioabsorbable components are degraded.

Studies have shown that increasing pore size from medium to very large had improved mechanical strength of tissue ingrowth and reduced scar plate formation.

IMPROVING TISSUE RESPONSE
REDUCING RISK OF RECURRENCE

ULTRAPRO™ Mesh

PHASIX Mesh

Parietex™ Optimized Composite Mesh

BARD® Soft Mesh

Symbotex™ Composite Mesh

The macroporous knit of dense, monofilament PTFE fibers provide optimum strength for a durable, single-stage repair.
References


