

**GR Fabrics for Gowns and Drapes**  
as of March 26, 2020

Shareable information with customers that are already manufacturing, wanting to manufacture or that we see as a possible participant to help the critical demand for gowns and drapes.

- Several Glen Raven fabrics could be appropriate for use in isolation gowns and drapes. As each healthcare provider may differ in its requirements, we suggest contacting the specific healthcare provider directly to understand their needs and expectations.
- Following is a link to CDC FAQ about Personal Protective Equipment, specifically regarding gowns: <https://www.cdc.gov/coronavirus/2019-ncov/hcp/respirator-use-faq.html>

- The ANSI/AAMI PB70 standard includes four standard tests to evaluate the barrier effectiveness of surgical gowns, isolation gowns, and surgical drapes. Based on the results of these standardized tests, four levels of barrier performance are defined, with Level 1 being the lowest level of protection, and Level 4 being the highest level of protection. [Table 3](#) summarizes the requirements of ANSI/AAMI PB70:2012 regarding the classification of barrier performance of surgical gowns, isolation gowns, and surgical drapes.

Table 3: ANSI/AAMI PB 70:12 classification of barrier performance of surgical gowns, other protective apparel, surgical drapes and drape accessories.

Level <sup>1</sup>	Test	Liquid Challenge	Result	Expected Barrier Effectiveness
1	AATCC 42 Impact Penetration <sup>2</sup>	Water	≤ 4.5 g	Minimal water resistance (some resistance to water spray)
2	AATCC 42 Impact Penetration	Water	≤ 1.0 g	Low water resistance (resistant to water spray and some resistance to water penetration under constant contact with increasing pressure)
	AATCC 127 Hydrostatic Pressure <sup>3</sup>	Water	≥ 20 cm	
3	AATCC 42 Impact Penetration	Water	≤ 1.0 g	Moderate water resistance (resistant to water spray and some resistance to water penetration under constant contact with increasing pressure)
	AATCC 127 Hydrostatic Pressure	Water	≥ 50 cm	
4	ASTM F1670 Synthetic Blood Penetration Test (for surgical drapes)	Surrogate Blood	no penetration at 2 psi(13.8 kPa)	Blood and viral penetration resistance (2 psi)
	ASTM F1671 Viral Penetration Test (for surgical and isolation gowns)	Bacteriophage Phi-X174	no penetration at 2 psi(13.8 kPa)	

<sup>1</sup> In order of increasing protection<sup>2</sup> American Association of Textile Chemists and Colorists (AATCC) 42 Water resistance: impact penetration test determines the ability of a material to resist water penetration under spray impact [\[AATCC 2000\]](#)

<sup>3</sup> AATCC 127 Water resistance: hydrostatic pressure test determines the ability of a material to resist water penetration under constant contact with increasing pressure [\[AATCC 1998\]](#)

- **The choice of gown should be made based on level of risk of contamination and in accordance with the health care provider’s needs and expectations.**
  - Level 1, 2 and 3 have specific test requirements associated with them and can provide increasing resistance to liquids.
  - Only Level 4 gowns are tested for viral penetration resistance, and therefore only level 4 garments are considered impermeable to viral penetration.
- **Glen Raven fabrics that have passed testing in accordance with AATCC 42 and 127 are as follows, and could be used in gowns and drapes for specified levels below:**
  - **Level 1:** All Sunbrella Upholstery pattern CANVAS stock styles, all colors.  
All Sunbrella Shade (Awning/Marine) solid stock styles, all colors.
  - **Level 1, 2 & 3:** All Surlast™ and Hydrofend™ stock fabric items.
- Glen Raven has been and continues to actively work with a variety of our partners to leverage our collective production, textile, and supply chain capabilities to help address some of the critical needs of our medical community.