



### TECHNICAL DATASHEET

POLAR X is a cutting edge aerogel fabric with up to 4 times the thermal insulation performance vs. traditional synthetic insulation materials. POLAR X has been specifically engineered for use in performance clothing and cryogenic applications. It is dust free, stretchable, highly flexible, and easy to cut.

POLAR X combines exceptional thermal insulation performance with a thin, flexible profile that has been developed for easy sewing and bonding into clothing and textile applications.

### TECHNICAL INFORMATION

Properties	POLAR-X	POLAR-XP
Composition	Non-Porous	Porous
Thermal Conductivity @20°C (ASTM C177)	0.018 - 0.024 W/mK	0.018 - 0.024 W/mK
Waterproof Rating	40,000+ mm	N/A
Density (@ 2mm thickness)	95 ± 25 g/sqm	90 ± 25 g/sqm
Breaking Elongation (ATM D5034)	> 160%	> 155%
Breaking Strength	> 0.2 MPa	> 0.2 MPa
Color	Off-White (custom colors available)	Off-White (custom colors available)
Standard Thickness* <i>*0.5mm and 1mm custom thickness available</i>	2mm, 3mm	2mm, 3mm
Operating Temperature Range	-90°C (-130°F) to 90°C (194°F)	-90°C (-130°F) to 90°C (194°F)
Maximum Temperature	185°C (365°F)	185°C (365°F)
Standard Roll Width	1.45m (57 inches)	1.45m (57 inches)

### KEY PERFORMANCE ADVANTAGES

- Best in class thermal insulation
- Flexible and stretchy
- Easy handling
- Zero dusting
- Easy to cut, sew and laminate
- Ultra thin profile
- Washable
- Zero Waste (materials may be re-used)

### APPEARANCE

