

## E- Glass Fibre Cloth Product Data Sheet

- EXCELLENT THERMAL PROPERTIES
- EXCELLENT FOR HIGH TEMPERATURE FABRICATIONS
- ABRASION RESISTANT

### Products

- SLEEVINGS
- HEAT SHIELDS
- WELDING BLANKETS
- HIGH TEMPERATURE WRAP

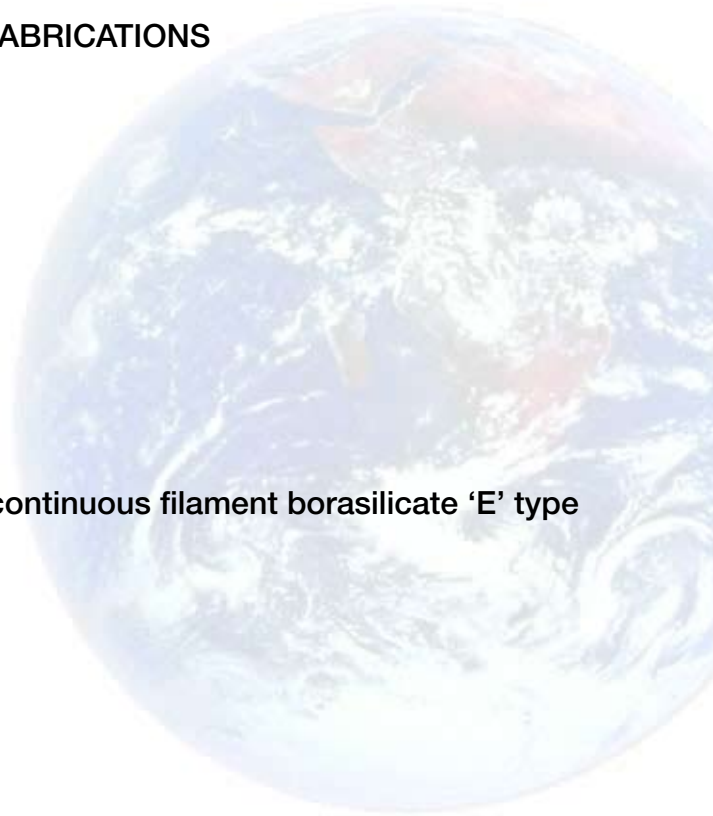
### Composition

Our products are manufactured from air textured continuous filament borasilicate 'E' type glass with a minimum diameter of 6 microns.

#### Typical Composition of 'E' glass

Silicon Dioxide	55.0
Aluminium Oxide	14.5
Calcium Oxide	22.0
Magnesium Oxide	0.3
Sodium Oxide	0.4
Boron Oxide	7.5
Potassium Oxide	0.3

Our E glass base cloth (loomstate) is air textured making it thermally insulating and capable of resisting temperatures up to 550°C. Using a range of laminating & coating techniques we are able to enhance the performance of the product as shown in the table below.



Description	General Properties	Continuous Temp °C	Short term Temp °C
Loomstate	Textured Glass fabric	400 static	600
		150 flex	
Aluminised Glass Cloth	Heat reflective Solvent liquid resistant	400 static	600
		150 flex	
Graphite ± Silicone treated	Good abrasion, flexibility at high temp	600	1000
Silicone Polymer coated	High temp, water resistant flexible coating	280	600 base fabric
Vermiculite Coating	Improved abrasion & temperature resistance	700°C	800°C
HT Inorganic Flexible Fabric	High Temp Protection	Varies depending on external conditions	1500°C

Our E-glass base cloth comes in five different weights as follows:

Standard	Weight (g/m <sup>2</sup> )	Thickness (mm)	Warp Ends / dm	Picks / dm	Tensile Strength	
					Warp N/50mm	Weft N/50mm
Light Weight  Heavy Weight	700 Nominal	0.8mm Nominal	77 Nominal	54 Nominal	1500 Nominal	1300 Nominal
	1000 Nominal	1.3 Nominal	52 Nominal	36 Nominal	2540 Nominal	2280 Nominal
	1200 Nominal	1.5 Nominal	52 Nominal	32 Nominal	2728 Nominal	2280 Nominal
	1400 Nominal	1.7mm Nominal	52 Nominal	36 Nominal	3550 Nominal	2300 Nominal
	2100 Nominal	2.6mm Nominal	66 Nominal	70 Nominal	4700 Nominal	5000 Nominal

We use range of high temperature sewing threads and fasteners to fabricate the products including:

## Sewing Threads:

### Kevlar®

Kevlar® has excellent strength and good thermal stability retaining a high percentage of room temperature properties at temperatures up to 300°C. It does not melt, or support combustion, but will oxidize to a cinder at 400-430°C.

### Nomex®

Mainly used to over lock the fabrications (prevent fraying at edges), Nomex® thread is known for its 'flame resistant properties, and is used extensively in protective textiles. Nomex® does not melt and has extremely low flammability. At temperatures above 371°C, the fibre degrades to a char. Nomex® has excellent resistance to chemicals.

### Stainless Steel Spun Yarn with PTFE or cotton

For High Temp products required to go above 550°C, this thread is used as the main reinforcing stitch. It has excellent resistance to high temperatures up to 800°C. For cotton coated thread the cotton burns off at relatively low temperatures to leave the stainless steel thread as the main reinforcing material.

## Hook & Loop Fasteners

### Velcro® HI-GARDE® brand Woven Fasteners

HI-GARDE® brand fasteners are constructed with 300 series stainless steel and are usable to 800°F.

### Velcro® HI-AIR® brand Woven Fastening Tapes

HI-AIR® Components - (Flame Retardant) Special woven hook and loop tapes made of a NOMEX® composite to meet or exceed existing F.A.A. requirements.

For further information, please contact 0161 368 2048 or email [sales@cheshireribbon.co.uk](mailto:sales@cheshireribbon.co.uk)