



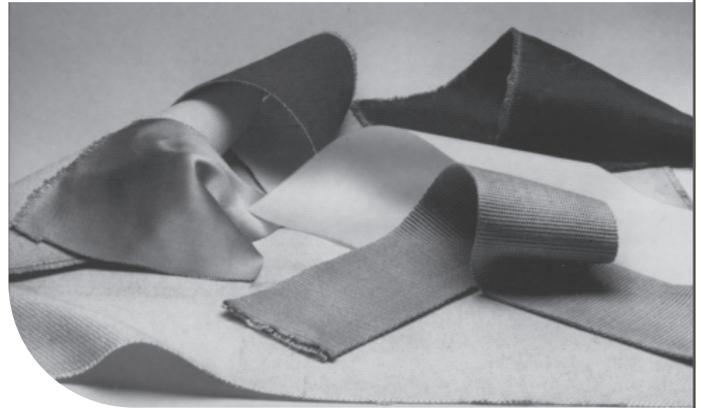
# FIBERSEAL FABRICS

## HIGH-TEMPERATURE MATERIALS

Pyrotek offers many high-temperature materials including asbestos free and Non-RCF (refractory ceramic fibre) fabrics. Specialty treatments like aluminized and silicone coatings and stainless steel wire reinforcement are available for fabric enhancement.

### APPLICATIONS

- Wind socks
- Gaskets
- Combo bags
- Filtration products
- Custom safety apparel
- Seals
- Insulation
- Curtains
- Blankets
- Hoardings
- Heat treating pads



### BENEFITS

- Custom shapes to meet specific project requirements
- Suitable for use over a wide temperature range

### NOTES

- Fabric availability depends on the specific Pyrotek location
- A "W" in the product name indicates a wire inserted into the weave, and "C" indicates coated material

## ALUMINIZED FABRICS

Aluminized fabrics are fire-resistant yarns that are closed weave, lightweight and durable. They provide molten metal splash protection and the fabric's aluminized side reflects radiant heat. The fabric's properties change at 500°C (932°F).

Fabric Name	Thickness	Weight	Advantages and Description	Applications
V-3A	0.787 mm (0.031 in)	644 g/m <sup>2</sup> (0.13 lb/ft <sup>2</sup> )	Leached fibreglass, air tight, reflects heat	Curtains, exhaust pads or trough covers
V-5A	1.448 mm (0.06 in)	1288 g/m <sup>2</sup> (0.26 lb/ft <sup>2</sup> )		
Z-8A	0.864 mm (0.034 in)	678 g/m <sup>2</sup> (0.14 lb/ft <sup>2</sup> )	Fibreglass base	Insulation blankets, safety clothing or curtains
	1.397 mm (0.055 in)	1288 g/m <sup>2</sup> (0.26 lb/ft <sup>2</sup> )	Silica base	
	1.321 mm (0.052 in)	644 g/m <sup>2</sup> (0.13 lb/ft <sup>2</sup> )	Aramid base	

## ARAMID FABRICS

Aramid fabrics are strong and are cut, slash and abrasion resistant. The fabric's tensile strength retention is based on how long it is exposed to specific temperatures. Aramids maintain full strength at continuous temperatures of less than 177°C (351°F), and at brief exposures up to 260°C (500°F). At temperatures greater than 177°C (351°F), the fabric's tensile strength decreases. A 50 percent decrease occurs at temperatures greater than 204°C (400°F) for 250 hours or at 260°C (500°F) for 50 hours. At temperatures greater than 427°C (801°F), the fabric rapidly decomposes.

Fabric Name	Thickness	Weight	Advantages and Description	Applications
S-1	0.381 mm (0.015 in)	271 g/m <sup>2</sup> (0.06 lb/ft <sup>2</sup> )	Excellent mechanical strength and abrasion resistance. Low air permeability.	Gloves, spacer bar covers, curtains, protective clothing, flexible covers
S-2	2.032 mm (0.08 in)	746 g/m <sup>2</sup> (0.15 lb/ft <sup>2</sup> )	Medium/heavy-duty fabric. Flexible and soft.	Gloves, jackets, curtains, gaskets
S-3	0.812 mm (0.032 in)	542 g/m <sup>2</sup> (0.11 lb/ft <sup>2</sup> )	Kevlar® jersey. The thickness measurement is nominal due to fleece construction.	Gloves, linings, jackets
S-4	1.778 mm (0.07 in)	153 g/m <sup>2</sup> (0.03 lb/ft <sup>2</sup> )	Kevlar felt	Gloves, pads



## FIBERSEAL FABRICS

### CERAMIC FIBRE FABRICS

Ceramic fibres are high-performance industrial grade fabrics used in high-temperature applications. These fabrics contain less than 2 percent organic carrier and will shrink less than 1 percent at 982°C (1800°F).

Fabric Name	Thickness	Weight	Advantages and Description	Applications
C-19	2.794 mm (0.11 in)	1187 g/m <sup>2</sup> (0.24 lb/ft <sup>2</sup> )	Wire reinforced for high strength retention at elevated temperatures. Good abrasion and mechanical abuse resistance.	Expansion joints, furnace curtains (entrance and exit barriers), personnel and equipment protection, slow cool blankets, welding blankets

### FIBREGLASS FABRICS

Inorganic fibreglass fabrics retain 50 percent of their strength at temperatures up to 370°C (698°F) and up to 20 percent at 540°C (1004°F).

Fabric Name	Thickness	Weight	Advantages and Description	Applications
1719	0.635 mm (0.025 in)	613 g/m <sup>2</sup> (0.13 lb/ft <sup>2</sup> )	Plain weave, S-glass	At 538°C (1000°F) the fabric loses 50–70% tensile strength. At 760°C (1400°F) the fabric becomes brittle. At 870°C (1598°F) the fabric is very brittle and disintegrates.
H-1	0.457 mm (0.018 in)	542 g/m <sup>2</sup> (0.11 lb/ft <sup>2</sup> )	Medium-weight closed-weave fibreglass	Outside fabric for trough dome gaskets. Channel bag patch cloth.
H-4	0.178 mm (0.007 in)	203 g/m <sup>2</sup> (6 oz/yd <sup>2</sup> )	Lightweight closed-weave cloth.	Used to block flow of molten aluminium in desired areas of filter bags.
Z-1	3.175 mm (0.13 in)	2034 g/m <sup>2</sup> (0.42 lb/ft <sup>2</sup> )	Highly texturized fibreglass fabric	Curtains, drapes, drop cloths. Sewn and fabricated shapes such as hot pads and gloves. Top roll machine seals for the glass industry.
	1.651 mm (0.07 in)	1356 g/m <sup>2</sup> (0.28 lb/ft <sup>2</sup> )		
	2.286 mm (0.09 in)	1356 g/m <sup>2</sup> (0.28 lb/ft <sup>2</sup> )		
	1.778 mm (0.07 in)	1085 g/m <sup>2</sup> (0.22 lb/ft <sup>2</sup> )		
	0.762 mm (0.03 in)	614 g/m <sup>2</sup> (0.13 lb/ft <sup>2</sup> )		
Z-5	2.032 mm (0.08 in)	1187 g/m <sup>2</sup> (0.24 lb/ft <sup>2</sup> )	Highly texturized fibreglass fabric	
Z-5W	2.032 mm (0.08 in)	1424 g/m <sup>2</sup> (0.29 lb/ft <sup>2</sup> )	Highly texturized fibreglass fabric with stainless steel wire	Rigid gaskets, open flame protection and drop cloths. Top roll machine seals for the glass industry.

### SILICA BASED FABRICS

Silica based fabrics contain at least 95 percent silica (minimum) and no ceramic fibres. The fibres have useful tensile strength at temperatures up to 950°C (1742°F) and have a melting point of 1650°C (3002°F).

Fabric Name	Thickness	Weight	Advantages and Description	Applications
OS600/V-3	0.762 mm (0.03 in)	610 g/m <sup>2</sup> (0.13 lb/ft <sup>2</sup> )	Compatible with high temperature ceramic fibre mat	Furnace covers, stress relief blankets, molten metal splash shields
OS1000/V-5, OS1000C	0.762 mm (0.03 in)	610 g/m <sup>2</sup> (0.13 lb/ft <sup>2</sup> )	Heavyweight fabric. Satin weave. Can be used in conjunction with high temperature ceramic fibre mat.	Furnace covers, stress relief blankets, molten metal splash shields, trough covers. Sewn products.
	0.991 mm (0.04 in)	822 g/m <sup>2</sup> (0.17 lb/ft <sup>2</sup> )		
	1.372 mm (0.05 in)	1085 g/m <sup>2</sup> (0.22 lb/ft <sup>2</sup> )		
OS3D-250	6.35 mm (0.25 in)	678 g/m <sup>2</sup> (0.14 lb/ft <sup>2</sup> )	Heavyweight multi-layer fabric. Very resistant to abrasion. Good insulation.	Trough covers. Insulating/wearing pads.





## FIBERSEAL FABRICS

### SILICONE COATED FABRICS

Silicone coated fabrics stop air or liquid penetration, reduce itching, increase abrasion resistance and molten metal splashing resistance. The silicone coating becomes brittle at temperatures over 250°C (482°F).

Fabric Name	Thickness	Weight	Advantages and Description	Applications
F-1	0.762 mm (0.03 in)	848 g/m <sup>2</sup> (0.17 lb/ft <sup>2</sup> )	Red silicone* coated fibreglass, coated on two sides	Welding curtains, heat shields, splash curtains. Airtight wear resistant backing for insulation.
F-3	0.432 mm (0.017 in)	576 g/m <sup>2</sup> (0.12 lb/ft <sup>2</sup> )	Red silicone* coated fibreglass, coated on two sides	Airtight high temperature seals. Compressible seals. Top roll machine seals for the glass industry.
F-3C1	0.330 mm (0.013 in)	305 g/m <sup>2</sup> (0.11 lb/ft <sup>2</sup> )	Red silicone* coated fibreglass, coated on two sides	
F-19	0.279 mm (0.011 in)	237 g/m <sup>2</sup> (0.42 lb/ft <sup>2</sup> )	Silver silicone coated fibreglass, coated on one side	Extremely lightweight air seal. Excellent carbon pit head wall seal.
Z-5C	1.7–1.8 mm (0.069–0.070 in)	1356 g/m <sup>2</sup> (0.28 lb/ft <sup>2</sup> )	Red silicone* coated fibreglass. Airtight and flexible, coated on one side.	Gaskets, drapes, airtight seals
Z-5C2	2.03 mm (0.08 in)	1526 g/m <sup>2</sup> (0.28 lb/ft <sup>2</sup> )	Red silicone* coated fibreglass. Airtight and flexible, coated on two sides.	Gaskets, drapes, airtight seals
Z-5WC1	2.032 mm (0.08 in)	1594 g/m <sup>2</sup> (0.22 lb/ft <sup>2</sup> )	Z-5 fibreglass cloth with red silicone* coating and stainless steel wire reinforcing, coated on one side	Top roll machine seals for the glass industry. Good for abrasion-resistant clothing.
Z-5WC2	2.032 mm (0.08 in)	1763 g/m <sup>2</sup> (0.13 lb/ft <sup>2</sup> )	Z-5 fibreglass cloth with red silicone* coating and stainless steel wire reinforcing, coated on two sides	Siphon gasket. Gaskets, drapes, airtight seals. Top roll machine seals for the glass industry. Good for abrasion-resistant clothing.
3101	0.432 mm (0.017 in)	576 g/m <sup>2</sup> (0.24 lb/ft <sup>2</sup> )	Silver silicone coated/ impregnated E-glass, coated on two sides. <260°C (500°F) operating temperature.	Welding curtains, heat shields, splash curtains. Airtight wear resistant backing for insulation. Airtight high temperature seals. Compressible seals.
3259	0.445 mm (0.018 in)	593 g/m <sup>2</sup> (0.29 lb/ft <sup>2</sup> )	Silver silicone coated/ impregnated E-glass, coated on two sides. <260°C (500°F) operating temperature.	
8459	0.813 mm (0.032 in)	1153 g/m <sup>2</sup> (0.24 lb/ft <sup>2</sup> )	Silver silicone coated/ impregnated E-glass, coated on two sides. <260°C (500°F) operating temperature.	

\* Red silicone coatings are resistant to 10–15°C (50–59°F) higher temperatures than the silver silicone coatings.



## FIBERSEAL FABRICS

### GRAPHITE COATED FABRICS

Graphite coated fabrics increase abrasion resistance to chemical attacks at lower temperatures.

Fabric Name	Thickness	Weight	Advantages and Description	Applications
FG-38 Graphite Coated Fibreglass	2.032 mm (0.08 in)	1288 g/m <sup>2</sup> (0.26 lb/ft <sup>2</sup> )	Plain weave fibreglass fabric. Has good abrasion resistance and release properties due to graphite lubrication. Intermittent use to 538°C (1000°F), base fibreglass fabric service to 427°C (801°F), graphite service to 427°C (801°F), coating binder service to 149°C (300°C).	High-temperature industrial gaskets, foundry applications where release is important

### PTFE (TEFLON®) COATED FABRIC

Fabric Name	Thickness	Weight	Advantages and Description	Applications
H-3	0.457 mm (0.018 in)	542 g/m <sup>2</sup> (0.11 lb/ft <sup>2</sup> )	Fibreglass base. Black silicon carbon emulsion coating. Coating keeps the material supple and strong in continued high-temperature use. Medium-weight closed-weave fibreglass.	Welding curtains, heat shields, wear resistant insulation backings
T-3	0.430 mm (0.017 in)	610 g/m <sup>2</sup> (0.13 lb/ft <sup>2</sup> )	Grey coloured, fibreglass E-glass material, coated on two sides. Excellent acidic and fluoride fume resistance.	Carbon bake and potroom. Flue end seals, flexible covers. Operating temperature of 288°C (550°F).

### VERMICULITE COATED FABRICS

Vermiculite coated fabrics provide increased chemical attack abrasion resistance at lower temperatures. The coating acts as a shield or deflector to heat or flame. If the fabric is engulfed or surrounded by heat or flame it becomes brittle at 315°C (600°F). Vermiculite fabrics are suitable for short-term, single side exposures at temperatures between 540–1095°C (1004–2003°F).

Fabric Name	Thickness	Weight	Advantages and Description	Applications
CDT Cloth	3.175 mm (0.13 in)	2034 g/m <sup>2</sup> (0.42 lb/ft <sup>2</sup> )	Vermiculite coated fibreglass resists molten metal splash. The coating dissipates heat across the fabric surface. Fibreglass base.	Annealing pads, curtains, expansion joints, blankets
Z+ and Z-5+	1.905 mm (0.075 in)	1288 g/m <sup>2</sup> (0.26 lb/ft <sup>2</sup> )		
	2.032 mm (0.08 in)	1356 g/m <sup>2</sup> (0.28 lb/ft <sup>2</sup> )		
	1.524 mm (0.06 in)	848 g/m <sup>2</sup> (lb/ft <sup>2</sup> )		

DuPont™ Kevlar® and Teflon® are registered trademarks of E.I. du Pont de Nemours and Company or its affiliates.

