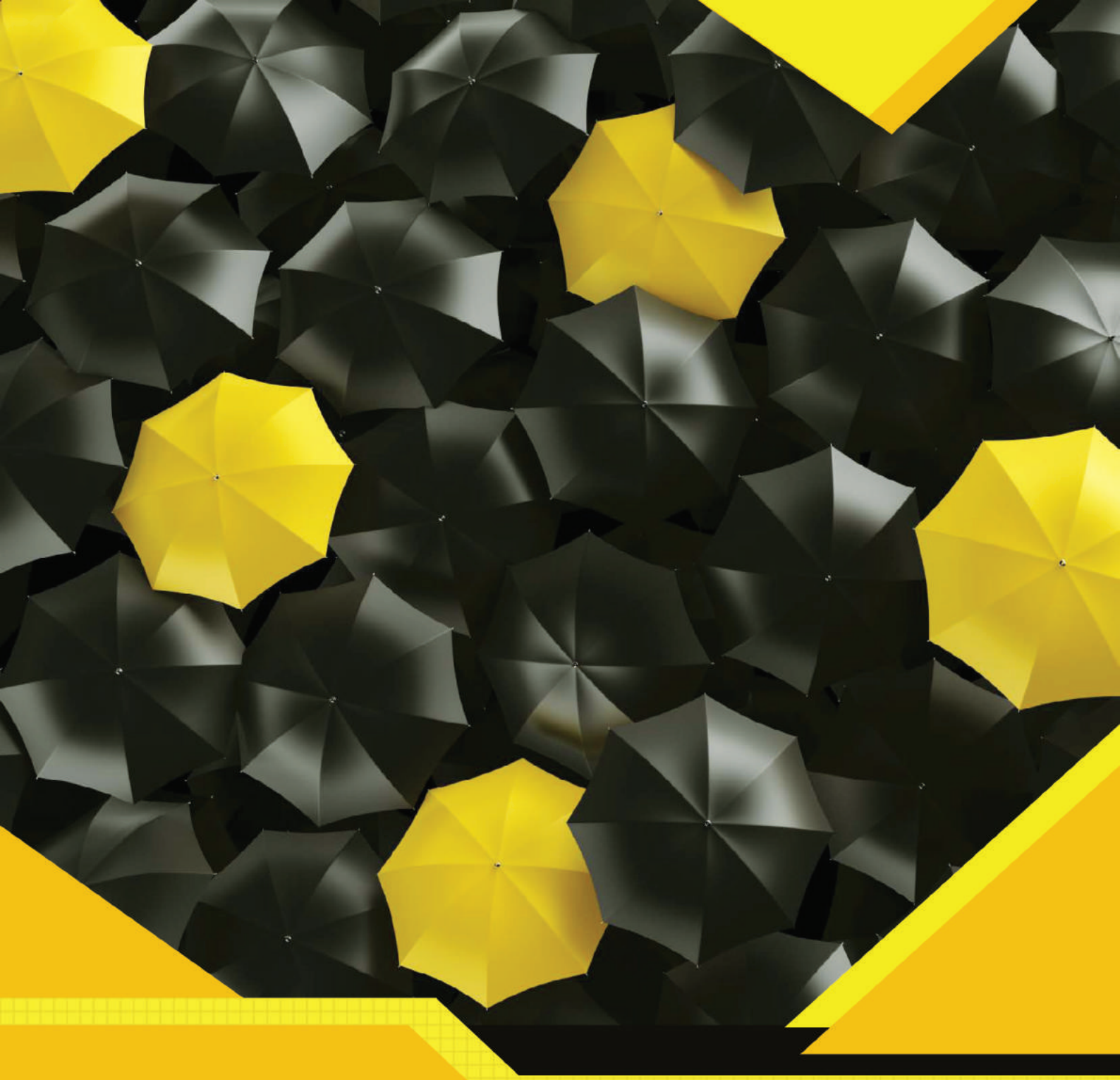

CERAFLEX

Designed For Professionals

FAMILY OF WOVEN TEXTILES

Product Information

Introduction

The woven textile product family is a unique group of hightemperature ceramic fiber fabrics useable in a wide variety of industrial applications. It is composed of three basic product lines: CERAFLEX cloth, tape and sleeving; CERAFLEX Cloth and CERA weave cloth and tape. CERAFLEX yarn, the core material from which CERAFLEX cloth, tape and sleeving is woven, is also available as a product form. CERAFLEX textiles have excellent resistance to thermal shock, corrosive attack and breakdown due to mechanical vibration and stress. They also exhibit excellent chemical stability, resisting attack from most corrosive agents. Exceptions are hydrofluoric and phosphoric acids and concentrated alkalies. CERAFLEX textiles also resist oxidation and reduction. If wet by water or steam, thermal and physical properties are completely restored upon drying. No water of hydration is present.

CERAFLEX Cloth, Tape and Sleeving

CERAFLEX textile product forms are durable, high-temperature ceramic fiber fabrics that are well-suited for industrial applications requiring strong, yet flexible, high-temperature resistant materials. They are noted for their superior insulating ability to 1260°C (2300°F). All textiles contain approximately 20%-30% of organic fiber added during the carding process to produce roving. The roving is further processed into yarn for weaving into cloth, tape and sleeving form. Inert materials are incorporated into the CERAFLEX yarn to increase fabric tensile strength. Metal alloy wire inserts are available for obtaining maximum strength at elevated temperatures. Glass filament inserts are used in applications where metal is undesirable as is the case when using CERAFLEX textiles as a dielectric. The following Insert materials are available:

- **Glass filament: service to 650°C (1200°F)**
- **Metal alloy wire: service to 982°C (1800°F)**

In applications where tensile strength is important, Temperature limits of Insert materials should be considered.

Typical Product Parameters

Temperature Grade: 1260°C (2300°F)

Recommended Operating Temperature:* 1175°C (2150°F)

Melting Point: 1790°C (3260°F)

*Determined by irreversible linear change, not melting point

Typical Applications

- Gasket and wrapping material
- Induction heating furnace coil insulation
- Cable and wire insulation (thermal and/or electrical)
- Infra-Red radiating diffusers
- Boiler gaskets
- Fuel line insulation
- Furnace heat zone separators
- High-pressure steam portable flange covers
- Welding curtains and blankets
- Exhaust hood curtains
- Pipe hanger insulation

Product Variation:	Description:
Heat Treatment (T)	3% Organics
Double Heat Treatment (TT)	0% Organics

Typical Product Properties | CERAFLEX Cloth (CERAFLEX cloth is available in the following types)

Type	Standard Width	Nominal Thickness	Insert Material	Temperature Limit of Insert	Weight kg/m	Weight (lb/lin yd)
C-HT1	1000mm	3.2 mm (=")	Glass	649°C (1200°F)	1.3	(2.7)
C-HT2	1000mm	3.2 mm (=")	Metal alloy	982°C (1800°F)	1.3	(2.7)

CERAFLEX Tape (CERAFLEX tape is available in the following types)

Type	Standard Widths	Nominal Thickness	Insert Material	Temperature Limit of Insert
T-HT1	25, 51, 76 mm (1", 2", 3")	3.2 mm (1/8")	Glass	649°C (1200°F)
T-HT2	13, 25, 51, 76, 152 mm (-",1", 2", 3", 6")	3.2 mm (1/8")	Metal alloy	982°C (1800°F)

CERAFLEX Sleeving (CERAFLEX sleeving is available in the following types)

Type	Standard Sizes	Nominal Thickness	Insert Material	Temperature Limit of Insert
S-HT1	25, 38, 51 mm I.D. (1", 1-", 2" I.D.)	3.2 mm (1/8")	Glass	649°C (1200°F)
S-HT2	13, 19, 25, 38, 51, 63, 76 mm I.D. (½", ¾", 1", 1½", 2", 2½", 3" I.D.)	3.2 mm (1/8")	Metal alloy	982°C (1800°F)

CERAFLEX Yarn

CERAFLEX yarn is a 1260°C (2300°F) ceramic fiber product which can be woven into numerous forms for industrial applications. Products made from CERAFLEX yarn are strong, chemically stable and exhibit superior insulating qualities. CERAFLEX yarn contains approximately 20-30% organic carrier and is spun around metal alloy wire or monofilament glass strands. These inserts provide maximum tensile strength at elevated temperatures. In applications where tensile strength is important, the temperature limit of the insert material should be considered.

Typical CERAFLEX Yarn Applications: • CERAFLEX cloth, tape, sleeving • Flexible braided wire covers

Typical Product Parameters

Type	Ply	Insert Material	Temperature Limit of Insert	Diameter	Tex* g/1000m	Yields (Linear Weight): m/kg ± 15%	yd/lb ± 15%
1	1	Glass	649°C (1200°F)	2 mm (3/32")	1078	928	460
2	2	Glass	649°C (1200°F)	3 mm (1/8")	1858	539	267
3-R	1	Metal alloy	982°C (1800°F)	2 mm (3/32")	1085	922	457
3	2	Metal alloy	982°C (1800°F)	3 mm (1/8")	1858	539	267

CERAFLEX HT12600 Cloth and Tape

CERAFLEX HT 1260 cloth and tape form a product line consisting of exceptionally durable woven textiles made from textured fiberglass. Recommended for continuous use to 538°C (1000°F), they are excellent insulators possessing very low thermal conductivity.

CERAFLEX HT 1260 textiles exhibit high dielectric strength and a low dielectric constant. They resist abrasion and fraying. In addition to being highly resistant to chemical attack,

CERAFLEX HT 1260 cloths and tapes are non-toxic, will not flash or smolder and are reusable. They are also wettable and mildew resistant.

CERAFLEX HT 1260 is made from specially treated yarns to prevent unravelling during cutting and fabrication.

CERAFLEX HT 1260 cloth is easily sewn and is ideal for fabricating products such as curtains and blankets.

CERAFLEX 1260 HT Tape
Typical Product Properties

Construction:	Plain weave
Temperature Grade:	538°C (1000°F)
Density: 1.6 mm (1/16"):	Nominal 816.9 kg/m3 (51 lb/ft3)
3.2 mm (1/8"):	Nominal 640.7 kg/m3 (40 lb/ft3)
Abrasion Resistance (ASTMD-1175):	
1.6 mm (1/16"):	Average cycles before wear through: 308
3.2 mm (1/8"):	Average cycles before wear through: 778
Thicknesses:	1.6 mm (1/16") 3.2 mm (1/8")
Widths:	25, 38, 51, 64, 76, 89, 102 mm (1", 1-", 2", 2-", 3", 3-", 4")
Length:	30.48 m (100')

Typical CERAFLEX HT 1260
Cloth and Tape Applications

- Personnel protection
- Envelopes for stress-relieving blankets
- Welding curtains
- Pipe wrapping
- Steam tracing lines
- Furnace door gaskets
- Pipe and boiler lagging

Data are average results of tests conducted under standard procedures and are subject to variation. Results should not be used for specification purposes.

Building Resources Group Pte. Ltd.
31 Tuas Ave 8 , Singapore 639245
Tel: +65 6861 7091 Fax : +65 6861 7092

BRG™ for better Insulation