

## Pyro-Log® Fiber and Pyro-Packaging



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### Features

#### Pyro-Log Fiber

- Monolithic log of 6" to 8" thick refractory ceramic fiber
- Available densities up to 15 pcf
- Fully needed - no adhesives

#### Pyro-Packaging

- Manufactured from Pyro-Log Fiber
- Used to fill small gaps impractical for standard module shapes
- Available in densities from 8 to 15 pcf
- Matches packing with density of surrounding Pyro-Bloc module lining

### Product Description

Pyro-Log is an uncompressed monolithic mass of ceramic fiber. Pyro-Log fiber is available in 6" and 8" (152 mm and 203 mm) thicknesses with densities up to 15 pcf (240 kg/m<sup>3</sup>). Manufactured in three ceramic fiber grades, R, ZR and C, the Pyro-Log fiber can be used in a wide range of applications. Pyro-Log fiber is the basic building block for all Pyro-Bloc applications.

All Pyro-Log fiber is produced with a special lubricant that allows the fibers to be intensely needed to attain densities up to 15 pcf. This lubricant also adds pliability which allows true multi-directional compression during installation. At moderate temperatures this lubricant burns out and the fiber mass becomes rigid. This feature, unique to Pyro-Log fiber, assists during installation and provides the durability and toughness necessary for long life.

### Applications

- Low mass kiln cars
- Fired heater floors
- Back up insulation for insulating firebrick and castable lining
- Fill gaps or small spaces where standard shapes are not practical

Pyro-Packaging is used to fill gaps or small spaces in ceramic fiber module linings where standard shapes are not practical or cost effective. Manufactured by cutting pieces of monolithic Pyro-Log, Pyro-Packaging is available in R, ZR, and C grade. Densities range from 8 pcf to 15 pcf (128 to 240 kg/m<sup>3</sup>) to match the surrounding Pyro-Bloc lining and offers higher densities when compared to traditional ceramic fiber blanket packing. A typical application would be to fill gaps or small spaces where standard shapes are not practical.

## Pyro-Log® Fiber and Pyro-Packaging



Physical Properties	R Grade	ZR Grade	C Grade
Color	white	white	blue/green
Density, pcf (kg/m <sup>3</sup> )	8, 10, 12, 15 (128, 160, 192, 240)	10, 12, 15 (160, 192, 240)	12 (192)
Continuous use limit, up to °F (°C)	2200 (1204)	2450 (1343)	2500 (1371)
Classification temp. rating, °F (°C)	2400 (1316)	2600 (1427)	2600 (1427)
Melting point, °F (°C)	3200 (1760)	3200 (1760)	3200 (1760)
<b>Chemical Analysis, %, weight basis after firing</b>			
Alumina, Al <sub>2</sub> O <sub>3</sub>	47	37.5	43
Silica, SiO <sub>2</sub>	53	47	54
Zirconia, ZrO <sub>2</sub>	–	15.5	–
Chromia, Cr <sub>2</sub> O <sub>3</sub>	–	–	3
Loss on ignition, L.O.I.	trace	trace	trace
Other	trace	trace	trace
<b>Thermal Conductivity, BTU•in./hr•ft<sup>2</sup>•°F (W/m•K), ASTM C 201</b>			
Measured Density, pcf (kg/m <sup>3</sup> )	10 (160)	12 (192)	15 (240)
Mean temperature			
@ 500°F (260°C)	0.52 (0.07)	0.50 (0.07)	0.49 (0.07)
@ 1000°F (538°C)	1.04 (0.15)	0.96 (0.14)	0.84 (0.12)
@ 1500°F (816°C)	1.81 (0.26)	1.66 (0.24)	1.43 (0.21)
@ 2000°F (1093°C)	2.69 (0.39)	2.45 (0.35)	2.19 (0.32)

### Standard Sizes<sup>2</sup>

Length, in (mm)	2 - 12 (51 - 305)
Width, in (mm)	12, 16 (305, 406), C in 12 only
Thickness, in (mm)	(1 (25), Pyro-Packaging 6, 8 (152, 203), Pyro-Log

<sup>1</sup> Edge grain orientation

<sup>2</sup> Other log dimensions available by request

The values given herein are typical average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Therefore, the data contained herein should not be used for specification purposes. Check with your Morgan Advanced Materials office to obtain current information.