



**Pyro-Log** is an uncompressed monolithic mass of ceramic fiber. Pyro-Log fiber is available in 6" and 8" (152 mm to 203 mm) thicknesses with densities up to 15 pcf (240 kg/m<sup>3</sup>). Manufactured in three temperature 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 (240 kg/m<sup>3</sup>). This lubricant also adds pliability which allows true multidirectional compression during installation. At moderate temperatures this lubricant burns out and the fiber becomes rigid enough to stand on. This feature, unique to Pyro-Log fiber, assists during installation and provides the durability and toughness necessary for long life.

**Pyro-Packing** 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-Packing is available in R Grade, ZR Grade and now in C Grade. Densities range from 8 pcf to 15 pcf (128 to 240 kg/m<sup>3</sup>) which better 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.

### Features

#### Pyro-Log Fiber

- Monolithic log of 6" to 8" (152 mm to 203 mm) thick refractory ceramic fiber
- Available densities up to 15 pcf (240 kg/m<sup>3</sup>)
- Fully needed - no adhesives

#### Pyro-Packing

- Manufactured from Pyro-Log Fiber
- Used to fill small gaps impractical for standard module shapes
- Available in compressed densities from 8 to 15 pcf (128 to 240 kg/m<sup>3</sup>)
- Matches packing with density of surrounding Pyro-Bloc module lining

### 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-Log Fiber Pyro-Packing

## Product Information

### Physical Properties

	Pyro-Log Grades		
	Pyro-Packing Grades		
	R	ZR	C**
Color	white	white	blue/green
Density, pcf ( <i>kg/m<sup>3</sup></i> )	8, 10, 12, 15 (128, 160, 192, 240)	10, 12, 15 (160, 192, 240)	12 (192)
Max. temperature rating, °F (°C)	2400 (1316)	2600 (1427)	2600 (1427)
Melting point, °F (°C)	3200 (1760)	3200 (1760)	3200 (1760)
Continuous use limit up to °F (°C)***	2200 (1204)	2450 (1343)	2500 (1371)

### Chemical Analysis, (Nominal,%)

	R	ZR	C**
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
Other	trace	trace	trace

### Standard Sizes

	R	ZR	C**
Thickness, in, (mm), Pyro-Log	6, 8 (152, 208)	6, 8 (152, 208)	6 (152)
Thickness, in, (mm), Pyro-Packing	1 (25)	1 (25)	1 (25)
Width, in, (mm)	12, 16 (305, 406)	12, 16 (305, 406)	12 (305)
Length, in, (mm)	2 - 12 (51 - 305)	2 - 12 (51 - 305)	2 - 12 (51 - 305)

### Thermal Conductivity, BTU•in/hr•°F, ASTM C 201 (w/m•k)\*\*\*

Mean temperature	8 pcf (128 kg/m <sup>3</sup> )	10 pcf (160 kg/m <sup>3</sup> )	12 pcf (192 kg/m <sup>3</sup> )	15 pcf (240 kg/m <sup>3</sup> )
@ 500°F (260°C)	0.53 (0.08)	0.52 (0.074)	0.50 (0.072)	0.49 (0.07)
@ 1000°F (538°C)	1.13 (0.16)	1.04 (0.15)	0.96 (0.14)	0.84 (0.12)
@ 1500°F (816°C)	1.97 (0.28)	1.81 (0.26)	1.66 (0.24)	1.43 (0.21)
@ 2000°F (1093°C)	2.95 (0.43)	2.69 (0.39)	2.45 (0.35)	2.19 (0.32)

\* Other log thicknesses available by request.

\*\* C Grade Pyro-Log not available in 8" or 16" log length.

\*\*\*Edge grain orientation

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 Thermal Ceramics office to obtain current information.

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#### Marketing Communications Offices Thermal Ceramics Americas

T: (706) 796 4200  
F: (706) 796 4398

#### Thermal Ceramics Asia Pacific

T: +65 6733 6068  
F: +65 6733 3498

#### Thermal Ceramics Europe

T: +44 (0) 151 334 4030  
F: +44 (0) 151 334 1684

#### North America - Sales Offices Canada

T: +1 (905) 335 3414  
F: +1 (905) 335 5145

#### Mexico

T: +52 (555) 576 6622  
F: +52 (555) 576 3060

#### United States of America

Eastern Region  
T: +1 (800) 338 9284  
F: +1 (866) 785 2764

#### Western Region

T: +1 (866) 785 2738  
F: +1 (866) 785 2760

#### South America - Sales Offices

**Argentina**  
T: +54 (11) 4373 4439  
F: +54 (11) 4372 3331

**Brazil**  
T: +55 (21) 2418 1366  
F: +55 (21) 2418 1205

#### Chile

T: +56 (2) 854 1064  
F: +56 (2) 854 1952

#### Colombia

T: +57 (2) 2282935/2282803/2282799  
F: +57 (2) 2282935/2282803/23722085

#### Guatemala

T: +50 (2) 4733 295/6  
F: +50 (2) 4730 601

#### Venezuela

T: +58 (241) 878 3164  
F: +58 (241) 878 6712