

Pyro-Log™ Cerafiber® and Cerachem®

Product Data Sheet



Product Description

RCF Pyro-Log is the base to our RCF Pyro-Bloc Modules. Monolithic Cera® fibre slabs with classification temperatures of 1260°C (2300°F) and 1430°C (2600°F), RCF Pyro-Logs feature excellent performance in high erosion application atmospheres and are manufactured using our market leading Cera fibres that are a blend of high purity ceramic fibres and raw materials.

Cera fibre based Pyro-Logs exhibit outstanding insulating properties at elevated temperatures and have excellent thermal stability and retain their original soft fibrous structure up to its maximum continuous use temperature.

Features

- Excellent thermal stability results in reliable and consistent thermal insulating performances
 - Immune to thermal shock
 - Binder or lubricant free
 - Thermal stability
 - Low heat storage
- High erosion resistance no damage up to 50 m/sec tested at 1260°C (2300°F) and 1430°C (2600°F)
- Excellent resistance to chemicals and pollutants, especially alkali metals
- Excellent tensile strength
- Good sound absorption

Applications

- Floors in Power Generation, Petrochemical and other Industrial furnaces and kilns
- Kiln cars for Ceramic industry
- Skid rail insulation in Iron and Steel walking beam furnaces
- Back up insulation for IFB or Castable linings

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Properties	Pyro-Log - Cerafiber/R Grade	Pyro-Log - Cerachem/ZR Grade
Colour	white	white
Classification Temperature, °C, EN 1094-1 (2008)	1260 (2300)	1430 (2600)
Continuous Use Temperature, °C (°F)	1205 (2200)	1345 (2450)
Density, kg/m ³ , EN 1094-1 (2008)	160, 192, 240 (10, 12, 15)	160, 192, 241 (10, 12, 16)
Specific heat capacity, kJ/kg•K, 1000°C (1832°F)	1.13	1.13
Loss of Ignition, %, EN 1094-1 (2008)		
2 hrs @ 800°C (1472°F)	<1	<1
Linear Shrinkage, %, EN 1094-1 (2008)		
1000°C (1832°F)	1.6	0.6
1100°C (2012°F)	2.3	1
1200°C (2200°F)	3	1.6
1300°C (2372°F)	-	3.2
1400°C (2552°F)	-	3
Chemical Analysis, %		
Alumina, Al ₂ O ₃	42-48	33-37
Silica, SiO ₂	52-58	48-52
Zirconia, ZrO ₂	-	13-17
Other	trace	trace

	Pyro-Log - Cerafiber/R Grade			Pyro-Log - Cerachem/ZR Grade		
Thermal Conductivity, W/m•K, ASTM C201						
Density, kg/m ³	160 (10)	192 (12)	240 (15)	160 (10)	192 (12)	240 (15)
200°C	0.06	0.06	0.06	0.07	0.07	0.06
400°C	0.11	0.1	0.1	0.11	0.1	0.1
600°C	0.17	0.15	0.15	0.17	0.15	0.13
800°C	0.26	0.22	0.19	0.24	0.22	0.18
1000°C	0.36	0.31	0.25	0.33	0.3	0.23
1200°C	0.49	0.41	0.34	0.44	0.41	0.3
Thermal Conductivity, BTU•in/hr•ft ² •°F, ASTM C201						
500°F	0.51	0.49	0.51	0.56	0.54	0.50
1000°F	1.04	0.92	0.88	1.03	0.92	0.83
1500°F	1.84	1.58	1.38	1.72	1.55	1.27
1832°F	2.50	2.15	1.73	2.29	2.08	1.60
2000°F	2.91	2.45	2.03	2.63	2.43	1.82
2500°F	3.41	2.87	2.33	3.06	2.85	2.07

Product Availability

R and ZR Grade Pyro-Log are manufactured and available globally, but packaging, density and thickness availability will vary by region.

Please contact your regional Morgan Advanced Materials - Thermal Ceramics representative to support providing specific packaging availability for your local business needs.

Whilst the values and application information in this datasheet are typical, they are given for guidance only. The values and the information given are subject to normal manufacturing variation and may be subject to change without notice. Morgan Advanced Materials – Thermal Ceramics makes no guarantees and gives no warranties about the suitability of a product and you should seek advice to confirm the product's suitability for use with Morgan Advanced Materials - Thermal Ceramics.