



UCAR[®] Refractory Systems



The GrafTech LT1[™] MetalCeramic Thermocouple Protection Tube is a combination of a chromium metal matrix and a pure alumina ceramic phase. A physical-chemical bond is formed through the sharing of oxygen by the chromium and the alumina. By the very nature of its constituents, the GrafTech LT1[™] MetalCeramic Thermocouple Protection tube exhibits unique properties that are not found in either metal or ceramic alone.

Features:

-Excellent oxidation resistance
-High thermal conductivity- comparable to stainless steel
-Can withstand very high temperatures, up to 1,650 °C
-Non-wetted by most molten metals and basic slags
-Good erosion resistance
-Good abrasion resistance
-Very low porosity-no passage of gasses at high temperature
-High strength above the temperature at which most materials melt or otherwise fail
-Dimensions and fittings can be customized to fit your needs
-Available for immediate shipment in standard sizes

Available in lengths 230-1220mm. Please contact us for additional product information.

KEY PROPERTIES AT ROOM TERMPERATURE	Typical Average	Units
Thermal Conductivity	0.294	W-cm/cm ² -K
CTE (to 100° C)	9 X 10 ⁻⁶	cm/cm/°C
Density	5.8	g/cm ³
Flexural Strength	310	MPa
Compressive Strength	760	МРа
Hardness	34	Rc
Chemical Composition	Cr: 75-85 Al ₂ 0 ₂ : 15-25	Weight %

Properties listed are typical and cannot be used as accept/reject specifications.





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