

Materials for Investment Casting

Typical Properties

Composition		Pouring Cups	Vent Plugs	Support Rods	Saggars
Minerology		Mullite	Mullite	Corundum	Cordierite / mullite
Al ₂ O ₃	%	65	50	95	45
SiO ₂	%	30	47	3	45
Fe ₂ O ₃	%	0.5	0.5	0.05	1
Other	%	3	3	2	7
Property					
Max Service Temperature	°C (°F)	1650 (3000)	1650 (3000)	1650 (3000)	1250 (2300)
Bulk Density	g/cm ³	2.2	2.0	3.7	2.0
Open Porosity	%	30	29	0	24
Modulus of Rupture (room temp)	MPa	20	50	250	12
Modulus of Rupture (1250°C)	MPa	15	-	-	13
Thermal Expansion (20-1000°C)	10-6/K	6.5	5	8	2.4
Specific Heat Capacity	kJ/kg.K	0.8	0.8	0.8	0.8
Thermal Conductivity	W/mK	2	3	25	1

This information is given in good faith but does not constitute a specification or guarantee.