

DATA SHEET

P-36

Ceramic Core Material

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Description		Physical Properties	
<p>High silica core type with an intermediate particle size distribution and excellent high temperature stability. Used for DS and SX configurations where there are blind passages and core leachability is a concern. Used with alloys that tend to recrystallize under stress or with jobs that are prone to hot tearing.</p>		Modulus of rupture (4-point), psi	1550
		Length shrinkage (mold-to-fired), %	1.3
		Chord shrinkage (mold-to-fired), %	1.4
		Thermal expansion coefficient (25 - 1000°C), ppm/°C	2.0
Major Chemistry		Bulk density, g/cc	1.6
Silica (SiO ₂), %	93	Apparent density, g/cc	2.3
Zircon (ZrSiO ₄), %	3	Porosity, %	32
Alumina (Al ₂ O ₃), %	3	Absorption, %	21
Other	1	Cristobalite content (after fire), %	11
Trace Element Analysis		Cristobalite content (after 30 min. at 1530°C), %	61
Iron (Fe), ppm	< 900	Leachability (30% boiling KOH, 30 g sample, 15 min.), %	100
Bismuth (Bi), ppm	< 1		
Lead (Pb), ppm	< 25		
Silver (Ag), ppm	< 25		
Antimony (Sb), ppm	< 25		
Tin (Sn), ppm	< 25		
Zinc (Zn), ppm	< 50		
		Core – Metal Reaction Compatibility	
		Most DS and SX alloys.	

Please note that all values quoted are based on test pieces and may vary according to component design. These values are not guaranteed in anyway whatsoever and should only be treated as indicative and for guidance only. Aug.12.2015