

DATA SHEET

P-35

Ceramic Core Material

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Description

High silica type with a fine particle size distribution and low hot strength. Used for DS and SX applications, especially with alloys that tend to recrystallize under stress or with jobs that are prone to hot tearing.

Major Chemistry

Silica (SiO₂), % 93

Zircon (ZrSiO₄), % 3

Alumina (Al₂O₃), % 4

Trace Element Analysis

Iron (Fe), ppm < 900

Bismuth (Bi), ppm < 1

Lead (Pb), ppm < 25

Silver (Ag), ppm < 25

Antimony (Sb), ppm < 25

Tin (Sn), ppm < 25

Zinc (Zn), ppm < 50

Physical Properties

Modulus of rupture (4-point), psi 1500

Length shrinkage (mold-to-fired), % 1.1

Chord shrinkage (mold-to-fired), % 1.0

Thermal expansion coefficient (25 - 1000°C), ppm/°C 1.3

Bulk density, g/cc 1.6

Apparent density, g/cc 2.3

Porosity, % 31

Absorption, % 20

Cristobalite content (after fire), % 7

Cristobalite content (after 30 min. at 1530°C), % 66

Leachability (30% boiling KOH, 30 g sample, 15 min.), % 100

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