P-78

Ceramic Core Material

Description
High silica core type with a very fine particle size distribution. Used for DS and SX applications with very thin cross sections.

Major Chemistry
- Silica (SiO₂), %: 97
- Zircon (ZrSiO₄), %: 2
- Alumina (Al₂O₃), %: 1

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: 1750
- Length shrinkage (mold-to-fired), %: 1.3
- Chord shrinkage (mold-to-fired), %: 1.3
- Thermal expansion coefficient (25 - 1000°C), ppm/°C: 1.2
- Bulk density, g/cc: 1.6
- Apparent density, g/cc: 2.3
- Porosity, %: 29
- Absorption, %: 18
- Cristobalite content (after fire), %: 6
- Cristobalite content (after 30 min. at 1530°C), %: 71
- 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