



Material Data Sheet

With over 15 years of experience in the manufacture of ceramic cores, DAI Ceramics, Inc. is at the cutting edge of ceramic core technology.

DAI has significant experience in the manufacture of solid and hollow extruded cores. Custom shapes such as squares, rectangles, ovals, and threaded rods can also be produced. Typical tolerances are +/- 0.001" on diameters less than 0.500" and +/- 0.002" on diameters greater than 0.500".

As a leading provider of ceramic cores, DAI maintains an extensive quality control and R&D lab to ensure it's materials meet specification and to assist with development of tomorrow's high performance core materials.

The information and data presented herein are typical or average values and are not a guarantee of maximum or minimum values. Applications specifically suggested for material described herein are made solely for the purpose of illustration to enable the reader to make their own evaluation and are not intended as warranties, either express or implied, of fitness for these or other purposes. There is no representation that the recipient of this literature will receive updated editions as they become available.

EC-3 Core Material

Material Composition (%)

Silica (SiO ₂)	74
Zircon (ZrSiO ₄)	25
Alumina (Al ₂ O ₃)	1

Trace Element Analysis

<u>Element</u>	<u>Typical ppm</u>
Lead (Pb)	< 25
Bismuth (Bi)	< 1
Silver (Ag)	< 25
Antimony (Sb)	< 25
Zinc (Zn)	< 25
Tin (Sn)	< 25
Iron (Fe)	300

% Cristobalite

After firing	7
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Modulus of Rupture (MOR)

Room temperature (psi.)	1900
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% Thermal Expansion

@ 1000°C (1832°F)	0.202
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Physical Properties

Bulk density (g/cc)	1.78
Apparent density (g/cc)	2.51
Porosity (Vol %)	29.02