



# CORE-TECH

Committed to your success with precision ceramic cores

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## DC-06

### Ceramic Core Material Properties Typical Analysis

**Applications:**  
For equiaxed, DS, and single crystal casting; ferrous, nickel and cobalt-based superalloys

Choosing the correct blend of material is a critical component to ensuring the successful performance of your ceramic cores in the investment casting process. The materials we use in our ceramic cores feature excellent alloy compatibility and consistent quality.

<b>Method:</b>	Injection Molded Core	
<b>Major Chemistry (Wt %):</b>	Silica	75
	Zircon	25
<b>Trace Elements (PPM):</b>	Pb - Lead	<10
	Bi - Bismuth	<0.5
	Ag - Silver	<10
	Sb - Antimony	<5
	Zn - Zinc	<25
	Sn - Tin	<5
	Fe - Iron	150
<b>Physical Properties:</b>	Process Shrinkage	1.0%
	Apparent Porosity	30%
	Water Absorption	16%
	Apparent Specific Gravity	2.55
	Bulk Density (g/cm <sup>3</sup> )	1.80
	Modulus of Rupture (MOR) (psi)	2300
	MOR with CT Impregnation	4200
	MOR with Resin Impregnation	5700
	Thermal Expansion RT to 2650° F	0.2%
	Cristobalite	8%

Note: These values are not guaranteed and should used only as indications of material properties. Core-Tech reserves the right to change, modify or eliminate analysis at any time.

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