

Table 2. Ceramicrete Properties

Property	Range of Values	Remarks
Density of binders	1.7-2.0 g/cc	May be enhanced or reduced by selecting aggregates and process additives.
Porosity	Open porosity is close to zero. Some close pores exist.	Intentional porosity may be introduced.
Compressive strength with aggregates	8000-12000 psi for Ceramicrete with aggregates; lower for ferrocement aggregate	Ash provides the highest strength.
Flexural strength	900 - 1600 psi	High strength is obtained in fiber-reinforced Ceramicrete.
Fracture toughness	0.3-1	Material is amenable to enhancement of toughness by addition of fibers, whiskers and coarse particles.
Aqueous stability	Stable in mild acid to mild base (pH of 3.5-11)	--
Thermal expansion coefficient	Approximately $10^{-5}/^{\circ}\text{C}$	Varies with aggregate.
Fire resistance	Fire proof binder	Bonded styrofoam, wood-dust products are fire-resistant.
Thermal stability	The binder gives away bound water at 120° C.	Stability is dictated by the stability of aggregates. Binder is a phosphate refractory material and is stable at very high temperatures.
Radiation stability	Stable in beta, gamma radiation	Alpha rays may decompose bound water, but due to recombination

		effects, net gas generation is minimal.
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