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Nota di contenuto	Preface; Contents; Symbols and Abbreviations; Introduction to Grain and Particle Effects on Ceramic and Ceramic Composite Properties; Grain Dependence of Microcracking, Crack Propagation, and Fracture Toughness at ~ 22°C; Grain Dependence of Ceramic Tensile Strengths at ~ 22°C; Grain Dependence of Indentation Hardness at ~ 22°C; Grain Dependence of Compressive Strength, Wear, and Related Behavior at ~ 22°C; Grain Effects on Thermal Shock Resistance and Elevated Temperature Crack Propagation, Toughness, and Tensile Strength Grain Dependence of Hardness, Compressive Strength, Wear, and Related Behavior at Elevated TemperaturesParticle (and Grain) Effects on Elastic Properties, Crack Propagation, and Fracture Toughness of Ceramic Composites at ~ 22°C; Particle Dependence of Tensile Strength of Ceramic Composites at ~ 22°C; Composite Particle and Grain Effects on Hardness, Compressive Strength, Wear, and Related Behavior at ~ 22°C; Particle and Grain Effects on Mechanical Properties of Composites at Elevated Temperature

Summary and Perspective for the Microstructural Dependence of  
Mechanical Properties of Dense Monolithic and Composite  
CeramicsIndex

Sommario/riassunto

A comprehensive review, evaluation and summary of the dependence of mechanical properties on grain and particle parameters of monolithic ceramics and ceramic composites, addressing size, shape and orientation. It emphasizes the critical link between fabrication and ceramic performance.