

CoorsTek Introduces New PhaseSiC™ Liquid-Phase Silicon Carbide Material for Oil & Gas Sealing Applications

Media Contact:
Harrison Hartman

T: +1.303.277.4559
F: +1.303.277.4779
hhartman@coorstek.com

Product Contact:
Dave Erich

T: +1.501.317.7171
F: +1.814.834.1430
derich@coorstek.com

New material achieves class-leading modulus of elasticity and compressive strength properties

March 8, 2007 – International Pump Users Show, Houston, TX – CoorsTek, one of the world’s largest technical ceramics manufacturers, today introduced its new PhaseSiC™ hybrid liquid-phase silicon carbide material developed specifically for severe-service oil & gas seal and valve applications.

Specifically, this new material provides nearly twice the elastic modulus of a traditional alumina material at 420 GPa (ASTM-C848) and compressive strength of 3600 MPa (ASTM-C773) – an 80% improvement over traditional alumina and 20% improvement over typical direct-sintered silicon carbide. This fine-grained material is also extremely dense (3.20 gm/cc – ASTM-C20), exhibits superior fracture toughness (5.6 Mpa/m^{0.5}) – a 30% increase over typical sintered silicon carbide, and provides impressive flexural strength at 480 MPa (ASTM-C1161). Material applications include high-speed, non-contacting gas seals (10,000 RPM), gas seal rings, aircraft seals, rotary valves, and other severe-wear components.

“We developed the PhaseSiC™ material specifically for severe-service oil and gas seals and seal rings,” states CoorsTek Energy Group Sales Director, Lloyd Sobel. “Every aspect of the material was carefully considered and engineered – from raw material formulation to final processing stages. The result is a unique material specifically tuned for exceptional performance and durability,” he continued.

For more information about PhaseSiC™ material and other ceramics for oil and gas applications, please visit www.coorstek.com, send an e-mail to hardseals@coorstek.com, or call +1. 501.317.7171.

More about CoorsTek...

Established in 1910, CoorsTek is one of the largest technical ceramics manufacturers in the world and serves customers throughout North America, Europe, and Asia. CoorsTek supplies critical components and complete assemblies for energy, medical, automotive, semiconductor, aerospace, electronic, power generation, telecommunication, and other high-technology applications. Utilizing advanced material technologies, the company's engineered solutions enable its customers' products to overcome technological barriers and improve performance. For more information about CoorsTek, please visit the Company's website at www.coorstek.com.

Resources – please contact Harrison Hartman at +1.303.277.4559 or hhartman@coorstek.com for:

1. High-resolution digital photos – please use link below:
 - a. http://www.coorstek.com/resources/images/PhaseSiC_Image.jpg
2. Full material properties of PhaseSiC™ material

The data in this media release is intended to illustrate typical properties. Engineering data is representative.

Property values vary somewhat with method of manufacture, size, and shape of part. Any suggested applications are not made as a representation or warranty that the material will ultimately be suitable for such applications. The customer is ultimately responsible for all design and material suitability decisions. Data contained herein is not to be construed as absolute and does not constitute a representation or warranty for which CoorsTek assumes legal responsibility. Any warranty or representation for which CoorsTek is responsible shall be subject to a separately negotiated agreement.

CoorsTek and Amazing Solutions are registered trademarks of CoorsTek, Inc.

PhaseSiC is a trademark of CoorsTek, Inc.

###