

CoorsTek Introduces Dura-Z™ Zirconia Material for Extreme-Service Applications

New material offers a stronger, tougher, and more fatigue-resistant magnesia partially stabilized zirconia.

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Golden, Colorado, May 3, 2004 – CoorsTek, Inc., a leading designer and manufacturer of advanced materials, critical components, and integrated assemblies for severe-service component markets, today announced the introduction of Dura-Z™ zirconia, a newly developed zirconia material that exhibits market-leading strength, toughness, and fatigue resistance.

In mid-2000, CoorsTek initiated a project to improve its TTZ material, the market leader in magnesia partially stabilized zirconia. After a great deal of development, testing, and evaluation, the CoorsTek Research and Development team internally announced its success with a material now known as Dura-Z™ zirconia.

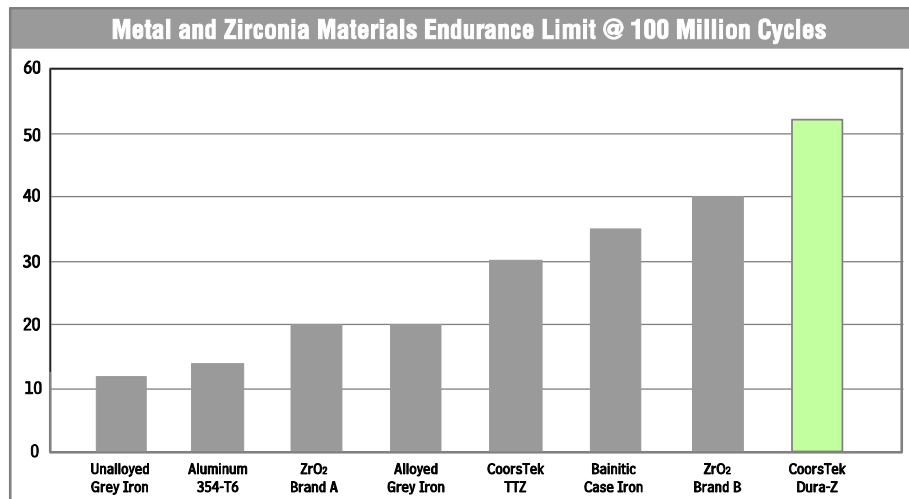
A key customer was selected to independently evaluate the material for use in extreme-service applications. Customer testing confirmed that Dura-Z™ material is 40% stronger, 60% tougher, and has a fatigue endurance limit 70% higher than the current CoorsTek TTZ material.

Dura-Z™ material will not only improve performance for components used in current applications, but its robust properties hold promise for components used in extremely high-stress conditions – typically well beyond the capability of traditional zirconia materials. Key applications for Dura-Z™ zirconia include fluid-handling components like pumps, seals, valves, bearings, and bushings.

Additional applications include components for medical equipment, oil and gas, chemical, material handling, and mechanical applications.

A New Metric for Advanced Ceramic Components

Utilizing test methods normally reserved for metal components, an independent laboratory tested and verified that CoorsTek Dura-Z™ material exhibits best-in-class performance for Endurance Fatigue Limit. In this test, a cyclic load is applied at a rapid rate to evaluate the maximum stress which the material will survive 100,000,000 cycles. Results using Dura-Z™ zirconia exhibited 25% greater fatigue resistance than the closest competitive material.



Brian Seegmiller, Senior Research and Development Engineer for CoorsTek and project lead for the development of this new material, states, “CoorsTek TTZ zirconia revolutionized the technical ceramics market. While traditional ceramic materials provided extremely hard, stiff, and heat and corrosion-resistant properties, their inherent brittle qualities limited their use in some severe-service environments. With the introduction of TTZ zirconia, CoorsTek addressed this issue with an extremely durable material. In the same vein, we believe Dura-Z zirconia will open up new opportunities for our customers to use ceramics.”

“Dura-Z zirconia represents a huge performance gain over competitive materials and offers the most fatigue-resistant magnesia partially stabilized zirconia in the marketplace,” stated Mark Petty, Vice President of CoorsTek, Inc. “With these performance properties, we’re well suited for severe-service applications beyond the traditional zirconia reach.”

An independent report showing test results and additional information about this material is available from CoorsTek upon request.

CoorsTek manufactures critical components, and complete assemblies for oil and gas, chemical, semiconductor, automotive, electronics, medical, telecommunications, and other industrial applications. Using technical ceramics, precision-machined metals, engineering plastics, and high-purity fused quartz, the Company’s solutions enable its customers’ products to overcome technological barriers and improve performance. For more information on CoorsTek, please visit the Company’s website at www.coorstek.com. For a high-resolution photograph, please contact Harrison Hartman at +1.303.277.4559 or hhartman@coorstek.com. For a PDF of the Dura-Z™ Zirconia brochure, please visit the “resource library” on the CoorsTek website. CoorsTek and Dura-Z are trademarks of CoorsTek, Inc. Amazing Solutions is a registered trademark of CoorsTek, Inc.

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