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MetcoXtreme™ — Composite Components

Advanced Material Technology for Extreme Applications

Excelling under the most demanding conditions, MetcoXtreme provides, extended part life, and reliable performance when extraordinary durability is demanded. MetcoXtreme materials are engineered with cutting-edge manufacturing techniques and new advanced patented technologies, offering application-specific solutions with unmatched strength, ductility, and wear resistance. Choose MetcoXtreme solutions for reliable, long- lasting performance in extreme conditions!

Enhance Performance with MetcoXtreme Composites!

Composites containing our proprietary Tungsten Carbide-based matrix, **MetcoXtreme™**, materials are meticulously engineered to meet application demanding properties and geometries, providing unrivaled strength and exceptional erosion resistance for the most demanding environments. Utilizing our proprietary, patented material treatment, MetcoXtreme composites are transformed into complex geometries that maximize performance in extreme environments with a typical hardphase hardness of 3000 Hv. All MetcoXtreme materials exhibit ductility, seen in metallic materials but rarely enjoyed in Super-Hard materials

MetcoXtreme™ ABR thrives under high-stress conditions, delivering superior high stress abrasion resistance—where it serves as a durable bearing surface and is free from cracking.

MetcoXtreme™ Elite provides a unique set of properties including high strength and wear resistance, with enhanced toughness. Components that encounter vibration and impact are catered for using MetcoXtreme Elite.

The Benefits of MetcoXtreme Solution

- Superior erosion and abrasion resistance – High resistance to wear and failure in extreme environments.
- Exceptional toughness and strength – Comparable to or exceeding metallic materials.
- Thermal shock and crack resistance – Withstands high- stress conditions.
- Proprietary patented BZ treatment – Enhances tungsten carbides for improved thermal conductivity and fracture toughness.

Industry Applications:

- Oil & Gas – Downhole tools, bottom hole assembly
- Mining & Processing – Sugar cane crushing, oil sand processing
- Industrial Components – Bearings, nozzles, inserts, pump parts

Design and manufacturing flexibility enable the incorporation of channels and complex shapes. Two or more MetcoXtreme Composites can be combined for location specific requirements.

> **MetcoXtreme** combines tungsten carbide wear resistance with cast metal flexibility, delivering **145 times** greater durability than legacy materials used in down-hole tools.

Interested?

For additional information please visit:
www.oerlikon.com/metco

Information is subject to change without prior notice.

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