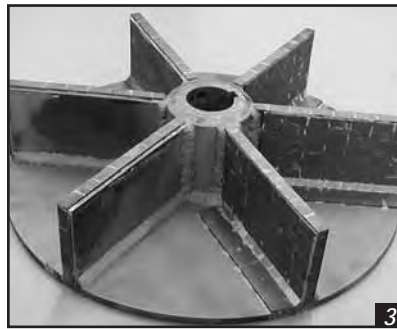
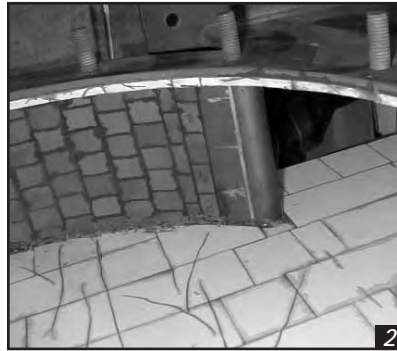


# KALMETALL®-TC Tungsten Carbide

**Toughest Material Available for Extreme Impact and Abrasion**

**KALMETALL®-TC**  
Tungsten carbide



1. Bolt-on KALMETALL®-TC wear panels combined with ALRESIST on a 64" fan rotor
2. Refractory fiber fan casing volute
3. Refractory fiber fan rotor

KALMETALL®-TC Tungsten Carbide provides the best protection available for extreme wear and impact. The wear properties of KALMETALL®-TC are determined by the ratio of tungsten carbide to the cobalt binder and can be tailored to each application.

Used alone or in combination with other wear resistant materials, KALMETALL®-TC simply lasts where others fail. Excellent product for use on fan blades, processing machinery components and in pipes and elbows where extreme abrasion exists.

- Longest lasting wear material available.
- Maintains hardness at high temperatures.
- Available in thin tiles, shapes or cylinders.
- A variety of grades for different situations.
- Attachment by brazing, KALBOND or standard adhesives.
- Outlasts alumina 5 times or more.
- Highly corrosion resistant.
- Continuous service temperatures to 480° C (900° F).

# KALMETALL®-TC Tungsten Carbide

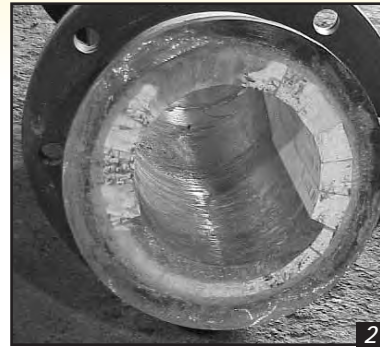
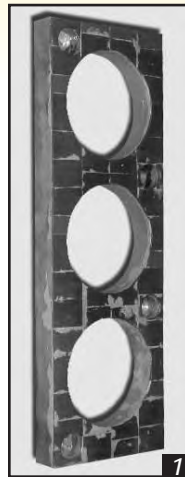
**“Bullet-proof” Your Equipment with KALMETALL®-TC**

**Abresist Corporation can:**

- Apply KALMETALL®-TC to existing components
- Incorporate linings in new re-engineered parts
- Supply complete fabrication

**KALMETALL®-TC is ideal for:**

- Abrasive material in fans & rotors
- Plows and paddles in sand mixers
- Pneumatic system pipes & elbows handling cullet and hard rock ores
- Severe duty rotating parts



1. Graphite pulverizer distributor plate  
2. Ferro-Silicon ore elbow with ½" thick KALMETALL®-TC

KALMETALL®-TC Properties		
Property	Metric	US
Density	13.5-15.0 g/cm <sup>3</sup>	842-936 lbs/ft <sup>3</sup>
Transverse Rupture	1,800-2,350 Mpa	260,000-340,000 lbf/in <sup>2</sup>
Thermal Expansion	3.4-4 x 10 <sup>-6</sup> K <sup>-1</sup> @ 20° C-160° C	1.9-2.2 x 10 <sup>-6</sup> in/in/°F @ 70° F-320° F
Compressive Strength	4,300-5,500 Mpa	625,000-800,000 lbs/ft <sup>2</sup>
Weight for 3.2 mm (1/8") thick	4.75 g/cm <sup>2</sup>	9.7 lbs/ft <sup>2</sup>
Temperature Limit	480° C	900° F
Hardness	88-92 Rockwell A	
Chemical Composition	WC 87-94%	Cobalt/Nickel 6-13%

Technical Data is the result of tests performed on selected samples, and some variations are to be expected. Abresist Corporation does not represent, warrant or guarantee the accuracy, completeness or reliability of same. Due to the production process, variations in the product may be expected. These include, but are not limited to dimensional tolerances, surface finish, voids, porosity and hairline fractures.

**Call on Abresist Corporation for help handling:**

- Bottom and fly ash
- Ore
- Coal/coke
- Iron oxide
- Dried sewage fertilizer
- Cement/clinker
- Grain
- Carbon
- Limestone
- Sand
- Glass/cullet
- Hog fuel/woodchips



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