



## CHALLENGE 540-HT

### LAPPING/POLISHING SLURRY ADDITIVE FOR SUSPENDING NON-TREATED ABRASIVE

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CHALLENGE 540-HT evenly disperses and suspends a variety of non-suspension-treated abrasives, including aluminum oxide, cerium oxide, zirconium oxide, along with silicon carbide, boron carbide, synthetic and natural diamond, and garnet. Because of its superior suspension characteristics, CHALLENGE 540-HT also reduces the amount of abrasive grain needed by up to 50%, while providing equal, and often greater, stock removal rates.

#### **Benefits:**

- Flatter parts
- No scratching
- Less sub-surface damage
- Easier post-lap cleaning
- Increased removal rate
- More consistent results
- Reduced abrasive usage

#### **Directions:**

CHALLENGE 540-HT should be mixed with deionized water and abrasive using the following slurry formula: 77-80% water, 16-18% abrasive, 4-6% CHALLENGE 540-HT. Use an agitator with a marine type propeller and a motor capable of 1750 RPM. Use a low shear dispense pump for feeding the mixed slurry onto the lap.

Disperse the abrasive with DI water at 1000 rpm for 3 minutes. Add 540-HT. Mix for approximately 30 minutes depending upon abrasive surface chemistry. A small vortex should form at the surface of the slurry. Turn the mixer off, or to a maximum of 50 rpm. For more detailed directions, request document #DOC-DIR-540HT.

#### **Additional Information:**

CHALLENGE Products are available in 5-gallon pails and 55-gallon drums, F.O.B. Bethel, Connecticut, and also include: grinding fluids, sawing fluids, rinse/wash agents and ultrasonic/megasonic detergents. Material Safety Data Sheets available upon request.

**Manufactured by: Intersurface Dynamics, Inc.**  
**21 Clarke Circle, PO Box 181, Bethel, CT 06801**  
**Tel 203-778-9995 • Fax 203-778-4659 • Email [admin@isurface.com](mailto:admin@isurface.com)**  
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