



CHALLENGE 555-HT HIGH LUBRICITY SLURRY AND COOLANT

CHALLENGE 555-HT was developed to achieve higher lubricity in specialized lapping and grinding applications using lapping plates, diamond impregnated pads, diamond grinding wheels and diamond impregnated tapes. It can also be used as a lapping/polishing slurry additive when performing free-abrasive processes. CHALLENGE 555 HT can be used alone as a coolant mixed with DI water at 4%. It can also be used alone as a lapping slurry additive mixed with abrasive and DI water at 5%. When used as a lapping/polishing slurry additive, the abrasive should not contain treatments. The abrasive types used with CHALLENGE 555 HT include alumina, zirconia, ceria, silicon carbide, boron carbide and diamond. Utilizing the energy of a high speed circulating pump, standard on most lapping machines, it evenly disperses these abrasive and also keeps them from packing hard in the slurry/coolant tank making it easier to re-disperse the abrasive after shut-down. As a coolant, CHALLENGE 555 HT offers a unique combination of lubrication, corrosion inhibition and detergency action to keep the blades, wheels, pad or tape clean and free-cutting.

Benefits:

- No scratching
- Less sub-surface damage
- No hard-packing
- Less abrasive waste
- Increased removal rate
- Easier post-lap cleaning
- Non-corrosive to machine
- Keeps abrasive tools clean and free-cutting

Directions:

CHALLENGE 555-HT is used at approximately 5% (by volume) with de-ionized (DI) water. As a slurry additive, CHALLENGE 555-HT is mixed with the water in the slurry tank prior to the addition of the abrasive. The slurry will be ready for use almost immediately. Start grain loading 400 g/liter for a one-meter machine. Flow rate for the slurry should be approximately 300ml/minute for a one-meter machine. As a coolant, mix CHALLENGE 555 HT at a concentration of 4% with DI water, re-circulate until mixed. Check concentration intermittently with a hand held fluid tester.

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.

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