



Highlights

- No scratching
- Less sub-surface damage
- No hard-packing
- Less abrasive waste
- Increased removal rate
- Easier post-lap cleaning
- Non-corrosive

Slurry additive for suspending non-treated abrasives (single pass)

CHALLENGE 543HT

CHALLENGE 543HT is a medium viscosity lapping / polishing slurry additive which evenly disperses and suspends a variety of non-suspension-treated abrasives, including aluminum oxide, zirconium oxide, along with silicon carbide, boron carbide, synthetic and natural diamond, and garnet. Because of its superior suspension characteristics, CHALLENGE 543HT reduces the amount of abrasive grain needed by up to 50 %, while providing equal, and often greater, stock removal rates. 543HT is particularly effective when using equipment with smaller slurry feed tubes, which constrict flow of high viscosity products.

Typical applications

Ceramic, fused silica, glass, polycarbonate lens

Slurry additive	Base material	Dilution ratio	pH value	Specific gravity
CHALLENGE 540HT	Water	19:1 (5%)	9.1	1.00
CHALLENGE 543HT	Water	25:1 (3.8%)	9.1	1.00
CHALLENGE 550HT	Water	19:1 (5%)	9.9	1.01
CHALLENGE 555HT	Water	19:1 (5%)	9.9	-



CHALLENGE grinding fluids improve the quality and consistency of the cut, while also prolonging diamond wheel lifetime.



CHALLENGE lapping additives dramatically improve slurry properties for more consistency and control.



Pureon offers a wide range of customized solutions. More information can be found on www.pureon.com/products/overview

Product specifications

Base material Water
Shelf life 24 months

Order information

Packing Product is available in 5-gallon pails and 55-gallon drums. Other sizes available upon request.
Unit of measure Gallon [gal]

Application recommendations

Handling CHALLENGE 543HT should be mixed with deionized water and abrasive using the following slurry formula: 77 – 82 % water, 15 – 18 % abrasive, 3 – 5 % CHALLENGE 543HT. Use an agitator with a marine type propeller and a motor capable of 1'750 RPM. Use a low shear dispense pump for feeding the mixed slurry onto the lap.

Disperse the abrasive with DI water at 1'000 rpm for 3 minutes. Add 543HT. Mix for approximately 10 minutes depending upon abrasive surface chemistry. Be careful not to suck air into the slurry when mixing. A small vortex should form at the surface of the slurry. Turn the mixer off, or to a maximum of 50 rpm.

Storage Product should be stored in a temperature controlled environment. Prolonged exposure to temperatures at or below 32 ° Fahrenheit (0 °C) is discouraged. Prolonged exposure to temperatures at or above 100 ° Fahrenheit (38 °C) is also discouraged. In addition, material should always be sealed when not in use to prevent evaporation.

Disposal Dispose of in accordance with all applicable local regulations.

This product is manufactured by Intersurface Dynamics.

Contact

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