



Highlights

- Extended blade life
- Lowest sub-surface damage
- Less bow and warp
- Increased production
- Reduced blade deflection
- Elimination of exit chipping
- Elimination of substrate tear

Synthetic grinding fluid (single-pass)

CHALLENGE 405HT

CHALLENGE 405HT is a synthetic formulation developed to optimize removal rate and surface finish in grinding, sawing, and dicing processes using diamond grinding wheels and blades. The product's exceptional heat transfer characteristics insure prolonged diamond life, even with the most difficult materials. CHALLENGE 405HT is compatible with all filtration systems, and its foam-free operation promotes operator acceptance. Note: New customers should consider the CHALLENGE 310-HT, which has an added characteristic of enhanced detergency that helps to keep the machine and work area more clean of grinding swarf and debris.

Typical applications

Ceramic, fused silica, glass, polycarbonate lens

Slurry additive	Base material	Dilution ratio	pH value	Specific gravity
CHALLENGE 300HT	Water	40:1	9.8	1.03
CHALLENGE 405HT	Water	400:1	12.3	1.02



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 405HT is designed for use at very high dilution ratios. Evaluation of the product should be performed at a ratio of 400 parts water to 1 part product (.25 %). Since the dilution ratio is so high, water quality plays an important role in the performance of the fluid make-up. Deionized water works best because of the elimination of ion interference with the surfactant base. Softened or fairly normal tap water will also perform adequately if the quality does not fluctuate.

Monitor the dilution ratio using a pH meter and a conductivity meter. Create a set of in-house graphs based upon the water supply to be used. Maintain the correct dilution using these graphs. Use this product in "once-through" systems only.

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.

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