



NANOPolish-3

LAPPING/POLISHING SLURRY ADDITIVE FOR USE WITH DIAMOND ABRASIVE

NanoPolish-3 Slurry Additive is a highly concentrated, biodegradable, viscous polymer formulation designed for use with diamond abrasives when lapping or polishing hard materials such as Sapphire and Silicon Carbide. When mixed at between a 10% to 30% concentration with DI Water, NanoPolish-3 disperses and suspends abrasive material for long periods of time with no change in physical or chemical characteristics. Designed for use on all types of lapping plates and pads typically utilized for hard, thin substrates, NanoPolish-3 will lubricate the plate or pad and keep it evenly charged for maximum uniform material removal combined with best possible surface finish. NanoPolish-3 can increase the removal rate of a lapping process on Sapphire or Silicon Carbide by as much as 100%, while maintaining a surface finish typical of the diamond type and size used.

Benefits:

- Produces flatter wafers
- Reduces wafer damage
- Increases cut rate
- Helps to eliminate scratching
- Provides more consistent results
- Facilitates post-lap/post-polish cleaning
- Helps prevent wafer staining
- Reduces abrasive use

Directions:

A typical slurry formula for lapping/polishing using diamond abrasive would be:

- 69.0% to 89.9% DI Water,
- 10% to 30% NanoPolish-3, and
- 0.1% to 1.0% Diamond Abrasive.

Directions for use would be:

1. Add the diamond to 10% of the DI water, and place under a ultrasonic or dispersion-type mixer for five minutes (for diamond <2u take a full 5 minutes, for >2u less time is needed)
2. In a separate container, add the NanoPolish-3 to the remaining DI water and mix until homogenous with a marine-type mixing blade.
3. Add the diamond/water mixture from Step 1 to the Nanopolish-3/water mixture while it is mixing.
4. Mix the combined diamond/water/Nanopolish-3 for ~ 5 minutes, or until homogenous, with a marine-type mixing blade.

Additional Information:

NanoPolish-3 is available 1-gallon bottles, 5-gallon pails and 55-gallon drums, F.O.B. Bethel, Connecticut, Call regarding warehouse distribution in Seoul, KOREA; Tokyo, JAPAN; Shanghai, CHINA; SINGAPORE and Zurich, SWITZERLAND. Material Safety Data Sheets are available upon request.

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