Radical innovation in the cerium polishing

BOVONE DIAMOND TOOLS

NEW
AXION
GLASS POLISH

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CERIUM OXIDE POLISHING COMPOUND

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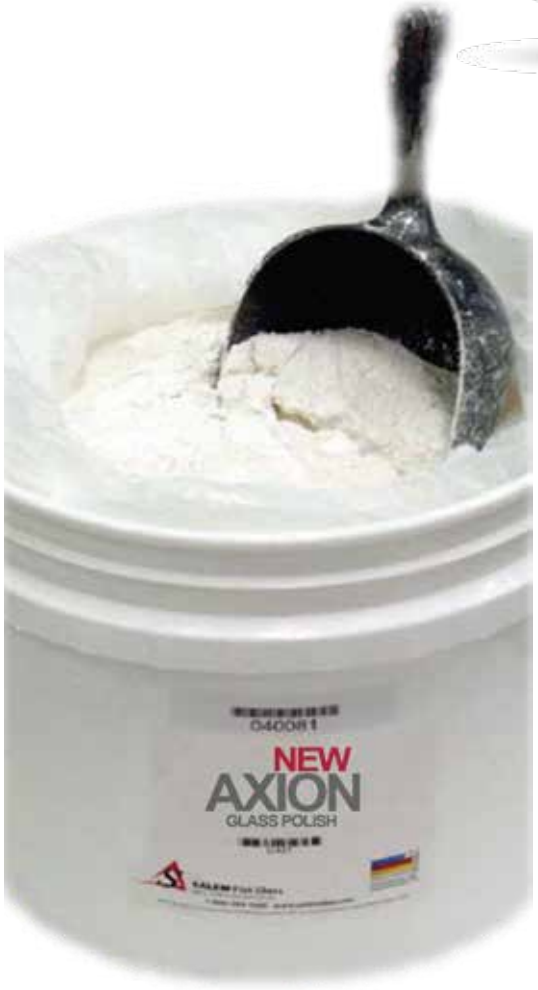

SPECIFICATIONS

- White Cerium Based Polish
- TREO – 94%
- Cerium Oxide – 64%
- Average Particle Size – 2.4µ
- Suspension Treated - YES
- Standard Packaging – 20 Kg Pail

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FEATURES

- Breakthrough polish engineering
- Fast-thorough dispersion
- Unprecedented suspension
- Exceptional polishing speed
- Soft Settling
- Non-clumping
- Readily sheets

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BENEFITS

- Increase polishing wheel life
- Increase polishing spindle life
- Increase polishing speeds
- Increase finish quality
- Increase production
- Increase efficiency
- Increase profits

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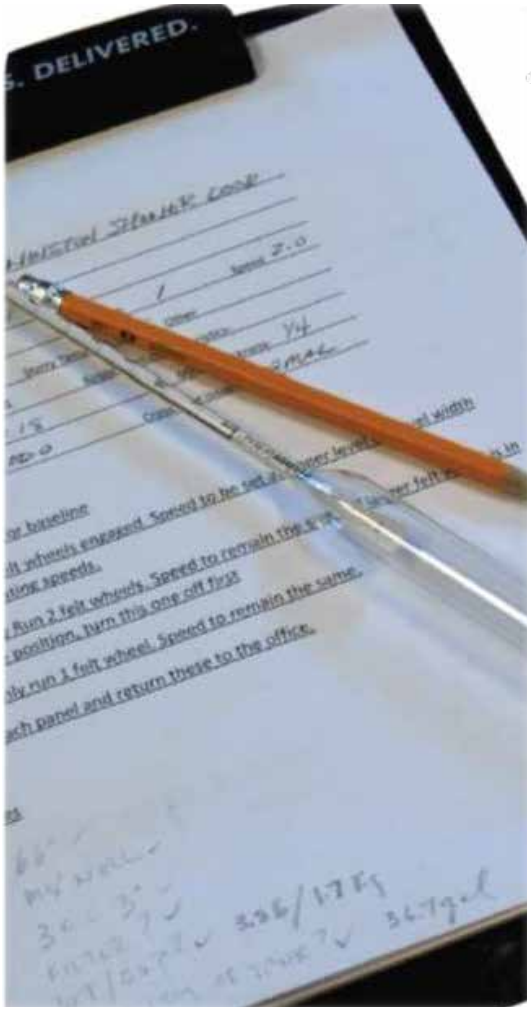

THE TEST

AXION vs POPULAR POLISH

Compare the overall performance:

- ☑ Surface Finish Quality
- ☑ Polishing Efficiency
  - Speed
  - Baumé
  - Suspension
  - Dispersion
  - Carry-out

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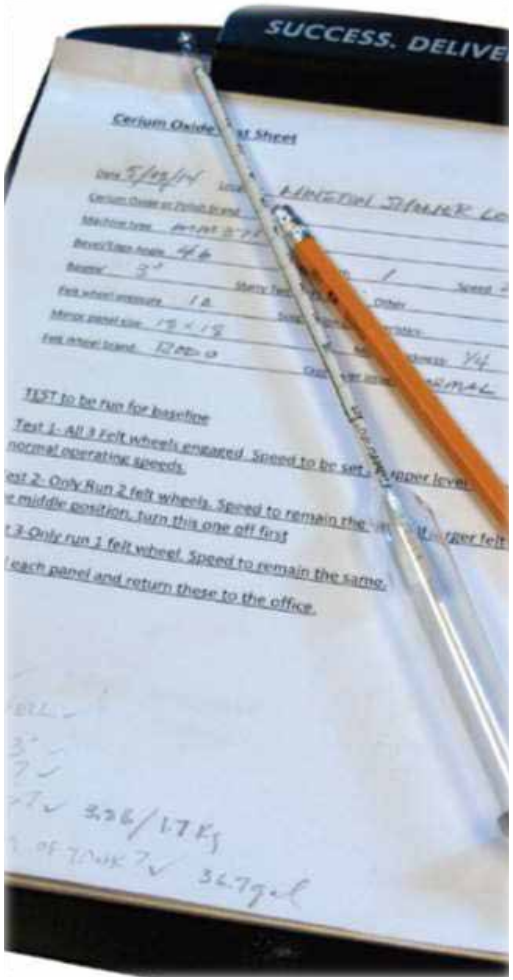

THE TEST PARAMETERS

AXION vs POPULAR POLISH

- ☑ Beveller: 1992 Mini Maxi 371
- ☑ Speed: 2 meters/minute
- ☑ Bevel Width: 1 inch
- ☑ Felt Wheel Pressure: 1 amp
- ☑ Baumé: 3° (see note)
- ☑ Slurry Temperature: 79°F
- ☑ Type of Felt Wheels: NOVA

Note: Volume of polish required to achieve as well as maintain target Baumé during the test period was 40% higher for popular polish.

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THE TEST PROCEDURE

POPULAR POLISH WITH NOVA FLETS

- ☑ Charged System With POPULAR POLISH
  - 2.4Kg/138.92l = 3° Baumé
- ☑ Three Panels (18” x 18”)
  - First Panel – 3 Felts
  - Second Panel - 2 Felts
  - Third Panel – 1 Felt
- ☑ Retained the Panels for Evaluation

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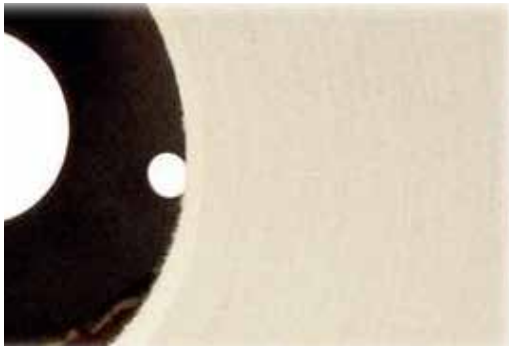

THE TEST PROCEDURE

AXION vs POPULAR POLISH

- ☑ Thoroughly Cleaned Screen and Tank
- ☑ Replaced Felts
- ☑ Charged System With AXION
  - 1.7Kg/138.92l = 3° Baumé

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THE TEST PROCEDURE

AXION vs POPULAR POLISH

- ☑ Ran Test With AXION
- ☑ Three Panels (18” x 18”)
  - First Panel – 3 Felts
  - Second Panel - 2 Felts
  - Third Panel – 1 Felt
- ☑ Retained the Panels for Evaluation

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TEST RESULTS

POPULAR POLISH

- First Panel – 3 Felts (Average)
  Slight Haze

- Second Panel - 2 Felts (Below Average)
  Visible Grind Lines
  Fine Scratches
  Minor Haze

- Third Panel – 1 Felt (Unacceptable)
  Obvious Grind Lines
  Light Scratches
  Very Hazy

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TEST RESULTS

AXION

- First Panels – 3 Felts (Off the Chart)
  Superior Finish
- Second Panels - 2 Felts (Above Average)
  Some Topography But Polished
- Third Panels – 1 Felt (Almost Acceptable)
  Faint Grind Lines
  Slight Haze

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SUMMARY/OBSERVATIONS

A MODEL OF EFFICIENCY AND EFFECTIVENESS

By pre AXION standards, the popular polish is a good product. WSD was producing a better than average finish, but they were doing a better than average job of managing the polishing process as well as the overall condition of their machine.

We determined that 2m/min at 3.5° Baumé was the popoular polish's breaking point. The popular polish exhibits "typical" settling characteristics. Without agitation, it settles and clumps in the polishing compartment, hoses and tank.

Axion is well engineered. It features consistent particle hardness and size as well as an effective chemical supporting package. It disperses immediately with typical Bovone cerium tank agitation. This was evident with the change in Baumé readings directly after each addition. It stays in suspension during use and settles slowly and softly when idle. It totally re-suspends within minutes of agitation. Polishing compartment and tank can be cleaned with water hose. Polishing performance (qualitatively) is off the chart. Axion is highly chemically reactive and is capable of out polishing the grinding operation. It was noted that routine diamond wheel "tweaking" during beveling was dramatically reduced. Axion performed well with both Rodo and Nova Felt polishing wheels at low pressure.

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SUMMARY/OBSERVATIONS

- ☑ Increase polishing wheel life
- ☑ Increase polishing spindle life
- ☑ Increase polishing speeds
- ☑ Increase finish quality
- ☑ Increase production
- ☑ Increase efficiency
- ☑ Increase profits