

# BUEHLER®

## EpoHeat™

### EPOXY SYSTEMS

- *Heat Curing Epoxy With Excellent Clarity (Golden Color)*
- *Productive and Convenient: Reduce Time Spent in Tedious Weighing Operations by Making a Larger Batch Which Can be Poured for Up to 4 Hours Later*
- *Low Viscosity, Vacuum Impregnation and Heat Cure Results in Excellent Penetration of Pores, Cracks, and Other Fine Features*
- *Hard Epoxy With Low Shrinkage Gives Excellent Edge Retention*
- *Oven Cure Required*

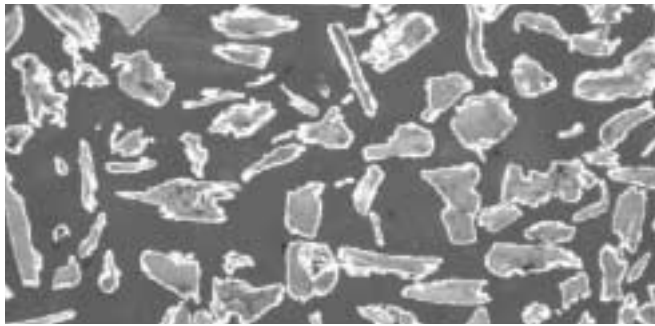


**BUEHLER**



PRELIMINARY DRAFT

  
**EMERSON**  
Industrial Automation



Nickel Graphite Powder mounted in EpoHeat 500X. Each individual flake was preserved during preparation and has excellent flatness and edge retention.

- The luxury of a speedy process, before EpoHeat, was always at the sacrifice of another desired quality. Now achieve fast results with minimal shrinkage, excellent penetration and marvelous clarity with Buehler EpoHeat.
- Mixed viscosity approaches that of water during cure cycle, providing excellent penetration of pores, cracks, and other fine features
- Low viscosity allows EpoHeat to wet the substraight and fill voids that other epoxy systems cannot
- Heat curing assists in the impregnation of porous materials because trapped air molecules expand, rise to the surface and allow EpoHeat to penetrate the remaining void
- Extreme clarity means you can easily see into the mount for specimen reference and identification. Note color of mount is golden.
- Mix ratio by weight: 4 parts of Resin No. 20-8120 to 1 part of Hardener
- Can mix system twice a shift as mixed epoxy can sit for up to four hours without gelling
- Requires 90 minute oven cure at 149 °F (65 °C)
- May not fully cure, or cure correctly without oven cure
- Due to low viscosity for best results, use one piece molds
- Do not exceed oven temperatures of 167 °F (75 °C) as air bubbles and voids can develop if over exotherms
- Peak exotherm 295 °F (146 °C)
- 85 Shore D Hardness
- EpoHeat gives a 30% improvement in shrinkage over competitive systems resulting in improved preparation. Shrinkage Measurement Comparison: EpoHeat = 10µm, EpoThin® = 12µm, Competitive System S=15µm
- 1 year shelf life

## EpoHeat Comparison to Other Buehler Castable Epoxy Systems

Product	Cure Time	Peak Temp	Shore D Hardness	HDT*	Recommended Mold
EpoKwick®	90 min	185 °F (85C)	82	130 °F (54 °C)	SamplKups®
EpoColor™	90 min	175 °F (79C)	82	110 °F (43 °C)	SamplKups®
EpoxiCure®	6 hours	82 °F (28C)	82	145 °F (63 °C)	Any
EpoHeat™	90 min	295 °F (146C)	85	170 °F (77 °C)	Reusable EPDM Mounting Cups
EpoThin®	9 hours	80 °F (27C)	78	110 °F (43 °C)	Any

\*HDT (Heat Deflection Temperature) is a measure of distortion resistance under load at elevated temperature. HDT data shows EpoHeat will remain harder than our other epoxy systems during grinding/polishing.

### Catalog Numbers

EpoHeat Resin 1qt. (0.95l) .....20-8120-032  
 EpoHeat Hardener 1 pt. (0.47l) .....20-8122-016

### Accessories

Release Agent with Swab\*\* 2 oz. (0.03l) .....20-8185-002  
 Release Agent Refill ½ pt. (0.24l) .....20-8185-008  
 Release Agent Refill 1 pt. (0.47l) .....20-8185-016  
 Release Agent Refill 1 qt. (0.95l) .....20-8185-032

\*\* Used for mold release and other mounting applications

### Recommended Molds

Resuable EPDM\* Mounting Cups

Size	Quantity	Catalog Number
1" (2.5cm)	5	20-8181
1¼" (3.2cm)	5	20-8182
1½" (3.8cm)	5	20-8183
2" (5cm)	5	20-8184
2.2" x 1.2" x 0.9" (55mm x 30mm x 22mm)	1	20-8484
2.8" x 1.6" x 0.9" (70mm x 40mm x 22mm)	1	20-8485

\* EPDM = Ethylene Propylene Diene Methylene Terpolymer

For a complete listing of Buehler Equipment and Consumables, please refer to our Buehler Equipment and Consumables Buyer's Guides. Buehler continuously makes product improvements; therefore, technical specifications are subject to change without notice.

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