

## Product Information Sheet

## EPO-TEK® EK1000-1

| Date:<br>Rev:                             | Februry 2023<br>IX                     | Recom              | nmended Cure: 150°C/1 Hour plus 200°C/1 Hour (post-cure) |
|---|--|--------------------|--|
| No. of Components:                        | Single                                 |                    | Minimum Alternative Cure(s):                             |
| Mix Ratio by Weight:                      | N/A                                    |                    | May not achieve performance properties listed below      |
| Specific Gravity:                         | 3.76                                   |                    | 200°C / 30 Minutes                                       |
| Pot Life:                                 | 2 Weeks                                | Dry Time: < 7 Days | 150°C / 1 Hour   |
|   |  |                    | 125°C / 2 Hours  |
| Shelf Life- Bulk:<br>Shelf Life- Syringe: | One year at -40°C<br>One year at -40°C |                    |  |

## NOTES:

• Container(s) should be kept closed when not in use.

• Filled systems should be stirred thoroughly before mixing and prior to use.

• Performance properties (rheology, conductivity, others) of the product may vary from those stated on the data sheet when bi-pak/syringe packaging or post-processing of any kind is performed. Epoxy's warranties shall not apply to any products that have been reprocessed or repackaged from Epoxy's delivered status/container into any other containers of any kind, including but not limited to syringes, bi-paks, cartridges, pouches, tubes, capsules, films or other packages.

Product Description: EPO-TEK® EK1000-1 is a single component, longer dry time version of EPO-TEK® EK1000 designed for applications requiring longer working time.

**Typical Properties:** Cure condition: varies as required Different batches, conditions & applications yield differing results. Data below is not guaranteed. To be used as a guide only, not as a specification. \* denotes test on lot acceptance basis

| PHYSICAL PROPERTIES:   |                             |  |  |  |
|--|-----------------------------|--|--|--|
| * Color (before cure):   | Silver                      |  |  |  |
| * Consistency:   | Smooth thixotropic paste    |  |  |  |
| * Viscosity (23°C) @ 10 rpm:   | 13,000-21,000               | cPs  |  |  |
| Thixotropic Index:   | 3.7                         |  |  |  |
| * Glass Transition Temp:   | ≥ 80                        | °С (Dynamic Cure: 20-300°С/ISO 25 Min; Ramp -10-200°С @20°С/Min) |  |  |
| Coefficient of Thermal Expansion (CTE):                                    |                             |  |  |  |
| Below Tg:  | 41                          | x 10 <sup>-6</sup> in/in°C                                       |  |  |
| Above Tg:  | 162                         | x 10 <sup>-6</sup> in/in°C                                       |  |  |
| Shore D Hardness:  | 65                          |  |  |  |
| Lap Shear @ 23°C:  |                             | psi  |  |  |
| Die Shear @ 23°C:  | ≥ 10                        | Kg 3,556 psi   |  |  |
| Degradation Temp:  | 375                         | °Č   |  |  |
| Weight Loss:   |                             |  |  |  |
| @ 200°C:   | 0.04                        | %  |  |  |
| @ 250°C:   | 0.15                        | %  |  |  |
| @ 300°C:   | 0.50                        | %  |  |  |
| Suggested Operating Temperature:   | < 300                       | °C (Intermittent)  |  |  |
| Storage Modulus:   | 609,195                     | psi  |  |  |
| Ion Content:   | Cl <sup>-</sup> : < 200 ppm | Na⁺: < 50 ppm  |  |  |
|  | NH4 <sup>+</sup> : > 5 ppm  | K⁺: < 50 ppm   |  |  |
| * Particle Size:   | ≤ 45                        | microns  |  |  |
| ELECTRICAL AND THERMAL PROPERTIES:   |                             |  |  |  |
| Thermal Conductivity (150°C/1 Hour): 12.1 W/mK                             |                             |  |  |  |
| Thermal Conductivity(150°C/1 Hour + 200°C/1 Hour): 22.7 W/mK               |                             |  |  |  |
| * Volume Resistivity @ 23°C (150°C/1 Hour + 200°C/1 Hour): ≤ 0.0007 Ohm-cm |                             |  |  |  |

This information is based on data and tests believed to be accurate. Epoxy Technology, Inc. makes no warranties (expressed or implied) as to its accuracy and assumes no liability in connection with any use of this product. EPOXY TECHNOLOGY, INC. 14 FORTUNE DRIVE, BILLERICA, MA 01821 (978) 667-3805, FAX (978) 663-9782 www.epotek.com