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# UL RATED – FLAME RETARDENT
# THERMALLY CONDUCTIVE COMPOUNDS

**These UL rated thermally conductive** Compounds are pourable, room temperature cure, epoxy resin systems. They are ideally suited for meter mix dispensing and designed for medium voltage devices such as transformers, electronic modules, and coil. They can also be used for many other general purposes of potting and encapsulating applications.

| PRODUCT | | EP-207 | EP-204 | EP-234 |
|---|---|---|---|---|
| **Mix ratio by weight (PART-A/PART-B)** | | **100/96.5** | **100/7** | **100/29.5** |
| **Mix ratio by Volume (PART-A/PART-B)** | | **100/100** | **100/15** | **100/50** |
| **Mixed Viscosity @ 25°C** | **cps** | 9000-13,000 | 9000-13,000 | 1200-1700 |
| **Pot life @ 25°C (100 grams)** | **minutes** | 100-140 | 180 | 20-30 |
| **Recommended Cure** | | 7 days @ 25°C | 24 hrs @ 25°C | 7 days @ 25°C |
| **Alternate Cure** | | 2 hrs @ 66°C | 1 hr @ 66°C | 2 hrs @ 66°C |
| **TYPICAL CURED PROPERTIES:** | | | | |
| **Color** | | Black | Black | Blue-Green |
| **Specific Gravity** | | 1.52 | 1.95 | 1.42 |
| **Hardness** | **Shore D** | 75 | 85 | 75 |
| **Thermal Conductivity** | **Cal-cm/sec-cm$^2$-°C** | - | 23 X $10^{-4}$ | 90 X $10^{-4}$ |
| **Water Absorption (weight gain) (168 hrs. immersion @ 25°C)** | **%** | 0.31 | 0.4 | 0.23 |
| **Linear Shrinkage** | **in/in** | 0.0035 | 0.001 | 0.0035 |
| **Tensile Strength** | **psi** | 2700 | 7000 | 1550 |
| **Tensile Modulus** | **psi** | - | - | 205,000 |
| **Elongation @ Break** | **%** | - | - | 8.5 |
| **Heat Distortion Temperature (HDT)** | **°C** | - | 45 | 33 |
| **Coefficient of Thermal Expansion (30°C to 90°C)** | **/°C** | - | 104 x $10^{-6}$ | 90 x $10^{-4}$ |
| **UL Flame Retardancy Test** | | Pass - 94 VO @ 0.25" thickness | Pass - 94 VO @ 0.25" thickness | Pass - 94 HB @ 0.25" thickness |
| **Dielectric Strength (3mm thickness)** | **Volt/mil** | 415 | 475 | 415 |
| **Dielectric Constant** | **@ 100 kHz** | 3.7 | 4.8 | 3.68 |
| **Dissipation Factor** | **@ 100 kHz** | 0.014 | 0.015 | 0.035 |
| **Volume Resistivity** | **Ohm-cm** | 3.2x$10^{14}$ | 2x$10^{15}$ | 3.2x$10^{14}$ |