



Electrically Conductive Adhesive Comparison Chart

| | 2-Part | | | | 1-Part | |
|--|---|---|---|---|---|---|
| | 8330 | 8330S | 8331 | 8331S | 9400 | 9410 |
| UNCURED PROPERTIES | | | | | | |
| Mix ratio by volume | 1:1 | 1:1 | 1:1 | 1:1 | N/A | N/A |
| Mixed density | 3.30 g/mL | 3.06 g/mL | 2.29 g/mL | 2.42 g/mL | 3.14 g/mL | 2.34 g/mL |
| Viscosity | Thixotropic | Thixotropic | Thixotropic | Thixotropic | Thixotropic | Thixotropic |
| CURED PROPERTIES | | | | | | |
| Application Parameters | | | | | | |
| Working time | 10 min | 4 h | 10 min | 4 h | Unlimited | Unlimited |
| Service cure @ 22 °C | 5 h | N/A | 5 h | N/A | N/A | N/A |
| Cure time @ 22 °C | 24 h | Heat cure only | 24 h | Heat cure only | Heat cure only | Heat cure only |
| Cure time @ 65 °C | 20 min | 2 h | 15 min | 2 h | 2 h @ 70 °C | 1 h @ 90 °C |
| Cure time @ 80 °C | N/A | 1 h | N/A | 1 h | 30 min | 30 min @ 100 °C |
| Cure time @ 100 °C | N/A | 30 min | N/A | 30 min | N/A | 7 min @ 150 °C |
| Electrical Properties | | | | | | |
| Resistivity | $1.0 \times 10^{-3} \Omega \cdot \text{cm}$ | $7.0 \times 10^{-4} \Omega \cdot \text{cm}$ | $7.0 \times 10^{-3} \Omega \cdot \text{cm}$ | $6.0 \times 10^{-3} \Omega \cdot \text{cm}$ | $3.1 \times 10^{-4} \Omega \cdot \text{cm}$ | $1.8 \times 10^{-3} \Omega \cdot \text{cm}$ |
| Thermal Properties | | | | | | |
| Service temperature range | -55 to 150 °C | -40 to 150 °C | -55 to 150 °C | -40 to 150 °C | -55 to 140 °C | -65 to 145 °C |
| Glass transition temperature (T _g) | 53 °C | 34 °C | 50 °C | 34 °C | 36 °C | 96 °C |
| CTE prior T _g | 89 ppm/°C | 97 ppm/°C | 54 ppm/°C | 78 ppm/°C | 76 ppm/°C | 42 ppm/°C |
| CTE after T _g | 224 ppm/°C | 208 ppm/°C | 169 ppm/°C | 158 ppm/°C | 100 ppm/°C | 150 ppm/°C |
| Thermal conductivity @ 25 °C | 1.8 W/(m·K) | 2.4 W/(m·K) | 1.4 W/(m·K) | 1.3 W/(m·K) | 4.7 W/(m·K) | 1.1 W/(m·K) |
| Thermal diffusivity @ 25 °C | 1.0 mm ² /s | 1.2 mm ² /s | 0.9 mm ² /s | 0.7 mm ² /s | 2.2 mm ² /s | 0.7 mm ² /s |
| Specific heat capacity @ 25 °C | 0.6 J/(g·K) | 0.6 J/(g·K) | 0.7 J/(g·K) | 0.8 J/(g·K) | 0.7 J/(g·K) | 0.8 J/(g·K) |
| Physical Properties | | | | | | |
| Color | Silver grey | Silver grey | Silver grey | Silver grey | Silver grey | Silver grey |
| Hardness | 73D | 73D | 73D | 60D | 74D | 70D |
| Tensile strength | 13 N/mm ² | 9.0 N/mm ² | 13 N/mm ² | 14 N/mm ² | 2.9 N/mm ² | N/A |
| Compressive strength | 36 N/mm ² | 36 N/mm ² | 39 N/mm ² | 65 N/mm ² | 18 N/mm ² | 26 N/mm ² |
| Lap shear (stainless steel) | 6.5 N/mm ² | 1.7 N/mm ² | 3.8 N/mm ² | 4.5 N/mm ² | 2.9 N/mm ² | 2.6 N/mm ² |
| Lap shear (aluminum) | 5.4 N/mm ² | 1.2 N/mm ² | 5.5 N/mm ² | 7.1 N/mm ² | 3.2 N/mm ² | 2.8 N/mm ² |

Refer to TDS for more information. N/A=Not Available

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