



## Series 599-Z3000 | Product Data Sheet

**ALKALINE REMOVABLE WATER-BASE COPPER CONDUCTIVE PAINT** In order to make plastic parts coated with conductive paint recyclable, paint has to be removed prior to grinding and remolding. **599-Z3000** is fully and easily removable using alkaline cleanser.

<b>SYSTEM:</b>	One component water base.
<b>DENSITY:</b>	11.3 ± 0.5 lbs/gallon (1.36 ± 0.06 kg/liter)
<b>SOLIDS:</b>	47 ± 2% by weight
<b>V.O.C.:</b>	1.0 ± 0.1 lbs/gallon (120.0 ± 12 grams/liter)
<b>(LESS WATER)</b>	
<b>VISCOSITY:</b>	95-100 KU
<b>APPLICATION METHOD</b>	Standard air gun with 60 psi atomizing air or CAN-AM System. Recommended fluid delivery system: pressure pot with large diameter, paddle type agitator at low RPM.
<b>RECOMMENDED FILM THICKNESS:</b>	1-2 mils (25-50 microns) dry (depending on surface resistivity requirements).
<b>DRYING TIME:</b>	At least 10 minutes @ 140°F (60°C) but preferably 30 minutes at 140°F. (60°C.) to achieve film hardness and conductive properties. Longer if film thickness is greater than 2 mils (50 microns). Flash-off time (air dry) prior to force drying should be 5 minutes maximum.
<b>ADHESION:</b>	TO MOST PLASTIC: 100% when tested in accordance with ASTM D3359-95a.
<b>COHESION:</b>	Cohesion is tested by ASTM D3359-95a. <ul style="list-style-type: none"> <li>• Some copper flakes sticking to the testing tape is permissible. When the testing tape is held to a light source, light is transmitted through the tape.</li> <li>• If the testing tape is 100% covered with a solid layer of copper flakes and light cannot be seen through the testing tape, this constitutes a failure.</li> </ul>
<b>SURFACE RESISTIVITY:</b>	<0.050 ohm/sq. @ 1 mil (25 microns) dry film thickness. <0.025 ± 0.005 ohm/sq @ 2 mils (50 microns) dry film thickness.
<b>HUMIDITY RESISTANCE:</b>	No change in resistivity or attenuation when tested in accordance with MIL-STD-202 Method 106 - 40 cycles; MIL-STD-810 Method 507 Procedure 5 - 480 hours cycling; Meets UL Specification 746-C.
<b>ATTENUATION:</b>	More than 75 dB from 1 MHz to 1 GHz.
<b>REMOVABILITY:</b>	Easily water washable after 5 minutes exposure to standard alkaline cleanser at 160°F.(71°C), e.g. 10% DMEA solution in water.
<b>SHIELDING EFFECTIVENESS:</b>	440 sq ft. per gallon @ 0.050 ohms/sq (10.8m <sup>2</sup> /liter @ 0.050 ohms/sq @100% transfer efficiency.
<b>STORAGE LIFE:</b>	Recommended storage in unopened containers is 12 months from date of shipment. Older material should have all Q.C. requirements rechecked before using.



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