



**POLAR INDUSTRIES, Inc.**

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## Food Contact Epoxy

### Polar Premium - 4250 Metal Can Coating Epoxy

Polar Premium Metal Can Coating, is a premium quality, one or two component, No-VOC, gloss HiOmega natural oil epoxy coating with UV curing catalyst. Food contact epoxy. Metal Can Coating is designed for application on properly treated aluminum, steel and other metal surfaces. Metal Can Coating provides superb durability, chemical resistance, water resistance, acid resistance, flexible with memory, and is washable when applied to properly prepared surfaces. Metal Can Coating is available in clear and white and can be tinted to a wide variety of custom colours. Cleanup with acetone, paint remover, or other common paint removing materials.

#### PROPERTIES - 7500 Series

Feature	Unit	Value	Measure Method
Pour Point	°C	-10	Factory Prescription
Kin. Viscosity by 23°C	mm <sup>2</sup> /s	1344	DIN 53 019
Density sp. Weight	g/cm <sup>3</sup>	1069	DIN EN ISO 3675
Working Temperature	45 – 120 °F surface temp	55-77	
Gel time by 23° C (1.5 kg accretion)	min	55	According application
Curing Time	min	30 in sunlight	According application
Set Time	min	4 under UV radiation	
Food Grade		Confirmed	

#### REMARKS FOR PROCESSING:

The optimal processing temperature is given by  $12^{\circ}\text{C} \leq T_p \leq 30^{\circ}\text{C}$ .  
All devices can be cleaned by acetone or a water/acetone mixture.

## POLAR PREMIUM Metal Can Coating

<b>RESISTANCE AGAINST CHEMICALS</b>			
<b>Agent</b>	<b>Findings</b>	<b>Agent</b>	<b>Findings</b>
<b>Solvents</b> Gasoline Methanol Acetone	R R swelling	<b>Salts</b> NaCl 3 % NaCl Saturated CaCl <sub>2</sub> Saturated	R R R
<b>Acids</b> HCl H <sub>3</sub> PO <sub>4</sub> HCOOH CH <sub>3</sub> COOH H <sub>2</sub> SO <sub>4</sub> HNO <sub>3</sub>	R R R R oxidation oxidation	<b>Lyes</b> NaOH  KOH	slow saponification  slow saponification
R - Resistant			
<b>DISPOSAL</b> Remains can be chopped up and be composted or burned.			
<b>SAFETY PRECAUTIONS</b> Wear personal protective equipment (PPE) and use proper ventilation when exposed for long period of time. Wash with soap/water or acetone/water after handling.			
<b>APPLICATION INSTRUCTIONS</b> Polar 4250 may be thinned for spray application. Thin 50/50, or to suit application. Stir vigorously for 5 minutes or until completely mixed. After thinning, Polar 4250 should be agitated intermittently and used within 48 hours of first agitation. Spray onto signs 0.1 to 0.3 ml thickness, or what is appropriate for an even coating of the surface. High Volume Low Pressure (HVLP) Sprayers must have Teflon or Viton seals. These seals are resistant to the natural flax oil base in Polar 4250.			
<b>CURING REQUIREMENTS</b> <b>OUTSIDE</b> Natural sunlight with minimum temperature of at least 45°F. Coating will dry to touch in 5 minutes peak summer, to 20 minutes in winter and completely cure in 1 to 3 days depending on temperature humidity and UV from sunlight <b>INDOORS:</b> UVB light 251 nanometer. Optimum range from 250 to 320 workable for exposure, 10 seconds to 60 seconds to start curing reaction. UV at 385 nanometer will cause a burning of the coating.			