



**POLAR INDUSTRY, Inc.**

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**POLAR PREMIUM 4900 MARINE COATING - Non VOC**

**Applications:**

Polar Premium 4900 MARINE COATING is a premium quality epoxy coating. This coating is non-VOC, hydrophobic and high gloss and is based on HiOmega® natural oil epoxy coating with organic anhydrides and UV stabilizers. This coating will reduce barnacle adhesion to hulls by 90 % and can be sprayed and cured underwater. MARINE COATING is designed for application on all marine applications including boat hulls, concrete piers, wood piers, stone and metal surfaces. Contains a proprietary antibiotic. Water and salt resistant. MARINE COATING provides superb durability and washability when applied to properly prepared surfaces. MARINE COATING is available in clear and white and can be tinted to a wide variety of custom colors.

**Mixing By Weight - 4900 Series**

Component "A"	Component "B"	Tint to Choice NMT 3%
1	n/a	
"A" – UV Epoxy "B" – N/A		Thinner – LMEE NMT 10%

Properties	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	0°F	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 light	

**MIXING INSTRUCTIONS:**

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.

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NON-VOC**

<b>RESISTANCE AGAINST CHEMICALS</b>			
<b>Agent</b>	<b>Findings</b>	<b>Agent</b>	<b>Findings</b>
<b>Solvents</b> Gasoline (Bio) Diesel Methanol Acetone	R 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
n.f. = no findings			

**DISPOSAL**

Remains can be chopped up and be composted or burned.

**SAFETY PRECAUTIONS**

Wear protective clothing (including gloves and goggles).  
 Wash with soap/water or acetone/water after handling.

**APPLICATION INSTRUCTIONS**

Polar 4900 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 4900 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 4900.

**CURING REQUIREMENTS****OUTSIDE**

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

**INDOORS:**

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.