

**Advanced Materials****Aradur<sup>®</sup> 9130****A LOW VISCOSITY LIQUID POLYAMIDOAMINE**

<b>GENERAL</b>	Aradur <sup>®</sup> 9130 is a low viscosity, room temperature curing agent for liquid Araldite <sup>®</sup> Epoxy Resins. It is suitable for solvent-free and high solids systems.	
<b>CHEMICAL DESCRIPTION</b>	Aliphatic polyamidoamine	
<b>APPLICATIONS</b>	Solvent-free and high solids coatings Coatings for potable water containers Adhesives Sealants	
<b>ADVANTAGES</b>	Low viscosity Good mechanical properties Long pot life	
<b>FDA STATUS</b>	Cured coatings made with this resin and other approved components meet the requirements of the Food & Drug Administration regulation 21 CFR 175.300, for the safe use as a food-contact surface under the conditions described in this section.	
<b>TYPICAL PROPERTIES*</b>	Visual Appearance	Clear, no contamination
	Color, Gardner, max	9
	Viscosity @ 25°C (77°F), mPa s (cPs)	250 - 500
	Active Hydrogen Equivalent Weight, g/eq	95
	Amine Value, mg KOH/g	425 - 449
	Density @ 25°C (77°F), g/cm <sup>3</sup> (lb/gal.)	0.99 (8.3)
	Flash Point, Closed Cup, °C (°F)	>93 (>200)

\* Typical properties are based on Huntsman's test methods. Copies are available upon request.

**STARTING FORMULATIONS****Clear Coating Starting Formulations**

<b>System (Parts by weight)</b>	<b>1</b>	<b>2</b>
Araldite® GY 6010 <sup>(1)</sup>	100	-
Araldite® PY 313 <sup>(2)</sup>	-	100
Aradur® 9130	50	50
Mix viscosity <sup>(3)</sup> @ 23°C, cPs	2,200	750
Gel time <sup>(4)</sup> 100 g, @ 23°C, min	184	599
<b>Curing Properties<sup>(5)</sup></b>		
<b>@ 23°C / 50% Relative Humidity</b>		
Dust-free time, hours	7.0	9.5
Cure-through time, hours	10.5	12.0
Film appearance <sup>(6)</sup>	Semi-gloss, exudate	Semi-gloss, exudate
<b>@ 5°C / 80% Relative Humidity</b>		
Dust-free time, hours	23.0	>24
Cure- through time, hours	>24	>24
Film appearance <sup>(6)</sup>	Matte	Not cured
<b>Coating properties after 7 day cure at 23°C</b>		
Dry film thickness, 10-11mil		
Glass Transition temperature, Tg <sup>(7)</sup> (°C)	51	45
Pencil hardness <sup>(8)</sup>	H	HB
Cross hatch adhesion <sup>(9)</sup>	4	5
Impact (direct/reverse), <sup>(10)</sup> in.-lbs.	16/0	160/120

<sup>(1)</sup> Standard bis A liquid epoxy resin (epoxy equivalent weight: 182 - 192)

<sup>(2)</sup> Reactive diluent modified bis A / F epoxy resin blend (epoxy eq. weight: 180 - 192)

<sup>(3)</sup> ASTM D 4440 (ICI Cone & Plate)

<sup>(4)</sup> Tested by TECAM® gelation timer

<sup>(5)</sup> Tested by Gardner® Circular Drying Time Recorder on a 10 mil wet coating

<sup>(6)</sup> Visual

<sup>(7)</sup> Tested by DSC (Differential Scanning Calorimetry)

<sup>(8)</sup> ASTM D 3363

<sup>(9)</sup> ASTM D 3359 (0 = worst, 5 = best)

<sup>(10)</sup> ASTM D 2794

**Typical Properties of the Cured System****Araldite GY 6010 / Aradur 9130 (50 phr), 7 days @ 25°C (77°F)**

Tensile strength, psi @ 25°C (77°F)	8,900
Tensile elongation, % @ 25°C (77°F)	6.2
Compressive strength, psi @ 25°C (77°F)	13,900
Heat deflection temperature	68°C (154°F)
Water absorption, 24 hrs @ 25°C (77°F), %	0.21
Hardness, Shore D	84

**Chemical resistance**

Water resistance, 7 days @ 25°C (77°F)	No effect
HCl, 10% resistance, 6 days @ 25°C (77°F)	No effect

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**PACKAGING & STORAGE**

Aradur® 9130 is supplied in 420 pound drums. This material should be stored at room temperature in the original sealed container (actual expiration date appears on the label).

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**HANDLING/SAFETY  
PRECAUTIONS**

**Warning ! Eye and skin irritant. May cause sensitization and dermatitis.**

Do not get in eyes.  
Avoid contact with skin and clothing  
Avoid breathing vapor, mist or spray.  
Wash thoroughly after handling.  
Promptly remove wet contaminated non-impervious clothing, wash before reuse.  
Destroy contaminated leather and absorbent shoes.  
Wear appropriate protective equipment or avoid exposure and all personal contact.  
Store in tightly closed containers in cool, dry area.  
Use with good ventilation.

**Read Material Safety Data Sheet Before Using.  
For Industrial Use Only.**

**FIRST AID****In case of contact :**

**Eyes :** Immediately flush with water for at least 15 minutes. Get immediate medical attention.

**Skin :** Promptly wash with mild soap and water.

**Inhalation :** Remove to fresh air. If breathing is difficult, give oxygen.

**Ingestion :** If conscious, give large quantities of water. Get immediate medical attention.

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