

# Araldite<sup>®</sup> GY 285

## An Unmodified Bisphenol F Epoxy Resin With Very Low Viscosity

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**General**

Araldite GY 285, alone or blended with epoxy resins based on bisphenol A or bisphenol A / F in combination with polyamine hardeners, is recommended for solvent-free coatings, impregnations, floorings and trowelling compounds applied to steel and concrete substrates. Also, when combined with aromatic diamines, GY 285 is suitable for advanced composite applications manufactured through RTM filament winding.

The reactivity of formulations of Araldite GY 285 corresponds roughly to that of unmodified bisphenol A epoxy resins.

The chemical resistance of systems based on Araldite GY 285 is similar to that of liquid bisphenol A epoxy resins, and considerably better than that of resins modified with reactive diluents.

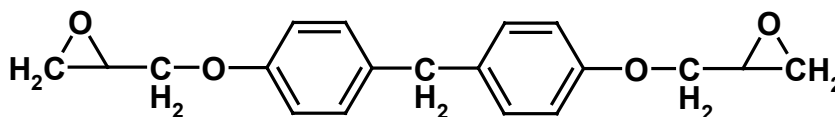
Under adverse storage conditions, Araldite GY 285 may crystallize. The crystallization can be reversed by heating the resin to 40°C while stirring. Araldite GY 285 is miscible in all proportions with other epoxy resins. Addition of at least 25% of bisphenol A epoxy resin or of epoxy phenol novolac will practically eliminate the tendency to crystallize. Araldite GY 285 is sanctioned by FDA 175.300 CFR for contact with food.

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**Chemical Description**

Araldite GY 285 is a diglycidylether of bisphenol F.

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**Chemical Structure**

<b>Applications</b>	Araldite GY 285, alone or blended with epoxy resins based on bisphenol A or bisphenol A / F in combination with polyamine hardeners, is recommended for solvent-free coatings, impregnation, floorings and trowelling compounds applied to steel and concrete substrates
	Advanced composite structures Adhesives Resin transfer moliding Filament winding

<b>Advantages</b>	Low viscosity Higher functionality than bisphenol A epoxy resins Excellent chemical resistance Outstanding resistance to solvents Excellent mechanical properties Good flexibility
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<b>Typical Properties*</b>	Visual Appearance	Clear, no contamination
	Color, Gardner, max	5
	Epoxy Equivalent, g/eq.	163 - 172
	Viscosity @ 25°C (77°F), mPa s (cPs)	2000 - 3000
	Density @ 25°C (77°F), g/cm <sup>3</sup> (lb/gal.)	1.19 (9.9)
	Flash Point, Closed Cup, °C (°F)	>93 (>200)

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

<b>Formulations</b>	<b>Components</b>	<b>Parts by weight</b>	
	Araldite GY 285	100	100
	Aradur™ 837	40	-
	Aradur 2963	-	50
	Viscosity @ 25°C (DIN 53015), cPs	3600	450
	Gel time (TECAM®, 100 mL, 20°C), min	20	40
	<b>Components</b>	<b>Parts by weight</b>	
	Araldite GY 285	100	
	Aradur 5200	26	
	<b>Cured Neat Resin Properties</b>		
	Curing Schedule, time/°C	2hr/80 + 2hr/150	
	<b>Glass Transition Temperature</b>		
	DSC, °C	125	
	DMA, °C	126	
	<b>Testing conditions</b>	<b>25°C</b>	<b>80°C</b>
	<b>Flexural Test</b>		
	Flexural Strength, ksi (MPa)	17.1 (118)	11.1 (77.3)
	Flexural Modulus, ksi (GPa)	409 (2.8)	324 (2.2)

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<b>FDA Status</b>	Araldite GY 285 is included in Section 175.300 of the Code of Federal Regulations (21 CFR 175.300).
<b>Packaging &amp; Storage</b>	Araldite GY 285 is supplied in 484 pound steel drums. This material should be stored at room temperature in the original sealed containers (actual expiration date appears on the label).
<b>Handling/Safety Precautions</b>	<p><b>Warning! Causes irritation. May cause allergic skin reaction.</b></p> <p>Avoid contact with eyes, skin or clothing. Avoid breathing vapor-mist or spray. Use with good ventilation. Wash after handling. Store in a cool, dry area in closed containers.</p> <p><b>Read Material Safety Data Sheet Before Using. For Industrial Use Only.</b></p>
<b>First Aid</b>	<p><b>In case of contact:</b></p> <p><b>Eyes:</b> Immediately flush with water for at least 15 minutes.</p> <p><b>Skin:</b> Promptly wash thoroughly with mild soap and water.</p> <p><b>Inhalation:</b> Remove to fresh air. Give oxygen if breathing is difficult.</p> <p><b>Ingestion:</b> In conscious, give plenty of water and get immediate medical attention.</p>

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**Note**

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