

## **Advanced Materials**

# EPALLOY<sup>®</sup> 5001LC<sup>#</sup>

### Accelerated Hydrogenated Bisphenol A Epoxy Resin

### DATA SHEET

	EPALLOY <sup>®</sup> 5001LC resin is an accele	rated version of the cycloa	liphatic	
	diepoxide EPALLOY <sup>®</sup> 5000 resin. Roo based on EPALLOY <sup>®</sup> 5001LC resin wi than those based on EPALLOY <sup>®</sup> 5000 unsaturation or aromatic structure; the excellent resistance to outdoor weathe	m-temperature curing form Il cure in significantly shor resin. EPALLOY <sup>®</sup> 5001LC refore, it is expected to pro ering.	nulations ter times C contains no ovide	
Applications	Tanks			
	Concrete dikes			
	Steel structures			
	Rail cars			
	Flooring			
Properties	Compared to formulations based on DGEBA, EPALLOY <sup>®</sup> 5001LC resin will provide improved chalking resistance and gloss retention. Curing agent selection, to achieve optimum weathering resistance, should be done with great care. Cycloaliphatic amines not accelerated with aromatic compounds or acids are recommended for curing. The low viscosity of EPALLOY <sup>®</sup> 5001LC resin will allow higher filler loading than DGEBA. Reduced shrinkage and cost reductions will result. The adhesion and chemical resistance characteristics of EPALLOY <sup>®</sup> 5001LC based formulations are expected to be like DGEBA systems.			
Key data	Specified key data			
	Appearance (visual)	clear		
	Epoxy equivalent (titration)	200 - 220	[g/eq]	
	Viscosity at 25 °C (Brookfield)	2000 - 4500	[mPa s]	
	Gardner Color	<3		
	Specified key data are individually checked throughout and guaranteed.			

<sup>&</sup>lt;sup>#</sup> In addition to the brand name product denomination may show different appendices, which allows us to differentiate between our production sites: e.g. BD = Germany, US = United States, IN = India, CI = China, etc. These appendices are in use on packaging, transport and invoicing documents. Generally, the same specifications apply for all versions. Please address any additional need for clarification to the appropriate Huntsman contact.

Typical key data		
Medium epoxy equivalent (ISO 3001)	210	[g/eq]
Residual Epichlorohydrin, max	$\leq 25$	[ppm]
Hydrolyzable Chloride, max	0.3	[%]
Flash point	≥ 160	[°C]
As-supplied form	liquid	
Odour	slight	
Shelf life (at storage temperature between 2 - 40 $^{\circ}\text{C}$ ) (see expiry date on original container)	3 years	
Hazardous decomposition products	carbon monoxide, ca	arbon dioxide
(when disposed of in fire)	and other toxic gases vapours	s and
Disposal	regular procedures approved by local authorities	
Typical key data are spot checked; the values are typical for the product and are indicated for information only. The values are not guaranteed.		

## **Performance Data**

Comparison of Pot Life and Cure Rate of EPALLOY® 5000 and 5001LC resins

Property	A	В
EPALLOY <sup>®</sup> 5000	100	—
EPALLOY <sup>®</sup> 5001LC	-	100
Diethylene Glycol Di(aminopropyl) Ether	26	26

Results\*

	А	B
100 gel time at 21 °C, hrs	380	100
D Hardness after	A	В
24 hrs at 21 °C	15	74
3 days at 21 °C	75	84
7 days at 21 °C	82	84
14 days at 21 °C	83	84
Acetone resistance after (5 mil film)	A	В
3 days at 21 °C	Poor	Good
14 days at 21 °C	Fair	Excellent

\*Information provided to indicate degree of acceleration only.

Storage	EPALLOY <sup>®</sup> 5001LC should be stored in a dry place, preferably in the sealed original container, at temperatures between 2 and 40 °C. The product should not be stored exposed to direct sunlight.
Handling precautions	Mandatory and recommended industrial hygiene procedures should be followed whenever our products are being handled and processed. For additional information please consult the corresponding product safety data sheets and the brochure "Hygienic precautions for handling plastics products".

#### **Huntsman Advanced Materials**

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