

Advanced Materials

Araldite[®] LY 1556 / Aradur[®] 34055

WARM CURING EPOXY SYSTEM

Araldite[®] LY 1556 epoxy resin Aradur[®] 34055 amine hardener

APPLICATIONS	 Industrial composites 			
	Structural composites			
PROPERTIES	Laminating system with high flexibility.			_
PROCESSING	Filament Winding Resin Transfer Moulding (RTM) Wet Lay-up			
KEY DATA	Araldite [®] LY 1556			
	Aspect (visual)	clear liquid		
	Viscosity at 25 °C (ISO 12058-1)	10000 - 12000	[cps]	
	Density at 25 °C (ISO 1675)	1.15 - 1.20	[g/cm ³]	_
	Aradur [®] 34055			
	Aspect (visual)	liquid		
	Viscosity at 25 °C (ISO 12058-1)	70-90		[cps]
	Density at 25 °C (ISO 1675)	0.95 – 1.0		[g/cm ³]
	Flash point (ISO 2719)	228 [109]	°F [°C]	

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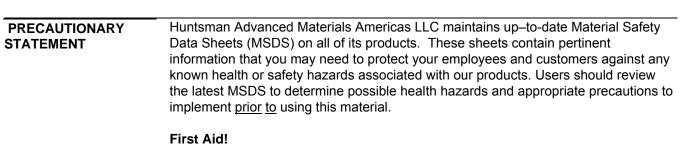
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Components	Parts by weight	Parts by volume		
Araldite [®] LY 1556 Aradur [®] 34055	100 33	100 41		
prevent mixing inaccuracies which components should be mixed thor the side and the bottom of the vess When processing large quantitie	can affect the properties of the moughly to ensure homogeneity. I sel are incorporated into the mixing of mixture the pot life will	natrix system. The t is important that ig process. decrease due to		
exothermic reaction. It is advisa containers.	ble to divide large mixes into	several smaller		
	°F [°C]	[cps]		
at	77 [25]	1500 - 1800		
	°F /°C1	[min]		
а		40 - 50		
	°F /°C1	[min]		
at		6 - 9		
		[min]		
Start End		200-260 300-360		
The values shown are for small amounts of pure resin/hardener mix. In composite structures the gel time can differ significantly from the given values depending on the fibre content and the laminate thickness.				
4h 140°F (60°C)+ 6h 176°F (80°C)				
	Araldite [®] LY 1556 Aradur [®] 34055 We recommend that the compor prevent mixing inaccuracies which components should be mixed thor the side and the bottom of the vess When processing large quantities exothermic reaction. It is advisa containers. at at Start End The values shown are for small amounts of can differ significantly from the given values	Aradidite [®] LY 1556 Aradur [®] 34055 100 33 We recommend that the components are weighed with an accomponents should be mixed thoroughly to ensure homogeneity. It is advisable to divide large mixes into containers. "F["C] at 77 [25] "F["C] at 82 [28] "F["C] Start End		

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GLASS TRANSITIO	N Cure:		۱۰	
TEMPERATURE	4h 140°F + 6h 176°F		198 - 208	
(IEC 1006,				
DSC, 10 K/MIN)				
	Cure:			
TEMPERATURE	4h 140°F + 6h 176°F		176 - 185	
(ISO 75)				
TENSILE TEST (ISO 527)		Cure:	4h 140°F + 6h 176°F	
(100 327)	Tensile strength	[psi]	11310 – 12760	
	Elongation at tensile strength	[%]	4.5 - 5.5	
	Ultimate strength	[psi]	10150 – 11600	
	Ultimate elongation	[%]	8 - 10	
	Tensile modulus	[psi]	464000 - 507500	
FLEXURAL TEST (ISO 178)		Cure:	4h 140°F + 6h 176°F	
	Flexural strength	[psi]	18850 – 21025	
	Elongation at flexural strength	[%]	6 - 7	
	Ultimate strength	[psi]	15950 – 18125	
	Ultimate elongation	[%]	9 - 11	
	Flexural modulus	[psi]	449500 – 493000	
FRACTURE PROPERTIES		Cure:	4h 140°F + 6h 176°F	
BEND NOTCH TES	F Fracture toughness K _{1C}	[psi√inch]	714 - 879	
(PM 258-0/90)	Fracture energy G _{1C}	[in-lb/inch ²]	0.74 – 0.97	
WATER ABSORPTION	Immersion:	Cure:	4h 140°F + 6h 176°F	
(ISO 62)	1 day H₂O 23 °C	[%]	0.13 - 0.17	
()	10 days H ₂ O 23 °C	[%]	0.50 - 0.55	
	Araldite [®] LY 1556 should be stored in heat and humidity, at temperatures b Under these storage conditions, the exposed to direct sunlight. Like many liquid epoxy resins, Arala room temperature. Heating the res for several hours, will reliquify it and Aradur [®] 34055 should be stored in a heat and humidity, at temperatures b Under these storage conditions, the exposed to direct sunlight.	etween +2°C and +4 shelf life is 5 years. T dite [®] LY 1556 may cry in to 60-70°C (140-16 d restore its original p dry place, the sealed etween +2°C and +4	0°C (+35.6°F and +104°F). The product should not be ystallize when stored below 60°F), preferably in a water bath, roperties. original container, away from 0°C (+35.6°F and +104°F).	



Refer to MSDS as mentioned above.

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