

Advanced Materials**Araldite[®] LY 8601 / Aradur[®] 8602 System****EPOXY RESIN SYSTEM****DESCRIPTION:**

Araldite[®] LY 8601 (Resin) / Aradur[®] 8602 (Hardener) is a two-component, low-viscosity epoxy system developed for use in the production of advanced composites using vacuum-assisted resin transfer molding (VARTM), resin transfer molding (RTM), Seemans Composite Resin Injection Molding Process (SCRIMPSM), or other infusion processes. The low-mixed viscosity and wet-out potential of Araldite[®] LY 8601 / Aradur[®] 8602 enhance processability parameters.

Araldite[®] LY 8601 / Aradur[®] 8602 has excellent toughness, and the increased reactivity allows for a faster ambient temperature cure and reduced de-mold time.

MIX RATIO:

By weight: 100 to 25 Resin to Hardener

Mixing Instructions: Measure each component accurately (\pm 5%) into clean containers. Thoroughly mix resin and hardener together (minimum 2 minutes) scraping container sidewalls, bottom and mixing stick several times to assure a uniform mix.

TYPICAL HANDLING PROPERTIES:

Tested @ 77 °F (25 °C) unless otherwise noted.

Property	Criteria	ASTM Test Method	Test Value
Color	Mixed		Transparent
Viscosity, cP	Resin	D-2393	580
	Hardener		25
Gel Time, minutes	Mixed		175
	14 fl. oz.	D-2471	70

NOTE : Typical Properties – These physical properties are reported as typical test values obtained by our test laboratory. If assistance is needed establishing product specifications, please consult with our Quality Control Department.

RECOMMENDED CURE SCHEDULE:

Temperature
77 °F (25 °C)

Demold Time
24 Hours

Full Cure Time
3 Days

NEAT SYSTEM**TYPICAL CURED PROPERTIES:**

Tested @ 77 °F (25 °C) and cured 7 days @ 77°F (25°C) unless otherwise noted.

Property	ASTM Test Method	Test Values⁽¹⁾
Specific Gravity	D-792	1.12
Cubic inch per Pound	--	24.6
Hardness (Shore D)	D-2240	82
Ultimate Flexural Strength, psi	D-790	11,013
Flexural Modulus, psi	D-790	322,560
Ultimate Tensile Strength, psi	D-638	7,871
Tg by DMA, °F (°C)	D-4065	164 (73)
Linear Shrinkage, Mold 0 in/in	D-2566	0.001
Ultimate Compressive Strength, psi	D-695	15,410
Compressive Modulus, psi	--	305,432
% Elongation	D-638	6
Coefficient of Thermal Expansion, in/in/°F -22 to 86 °F (-30° to 30 °C)	D-3386	42 x 10 ⁻⁶
Izod Impact, Notched, ft.lb./in.	D-256	0.4116

NOTE : All properties are of neat product form (non-composite)

INFUSION PROCESS**TYPICAL CURED PROPERTIES:**

Tested @ 77 °F (25 °C) unless otherwise noted.

Property	ASTM Test Method	Test Values⁽¹⁾	Test Values⁽²⁾
Hardness (Shore D)	D-2240	88	92
Ultimate Flexural Strength, psi	D-790	47,600	102,165
Flexural Modulus, psi	D-790	2.5 x 10 ⁶	6.9 x 10 ⁶
Ultimate Tensile Strength, psi	D-638	44,545	72,851
Ultimate Compressive Strength, psi	D-695	30,023	45,387
Compressive Modulus	D-695	3.6 x 10 ⁶	9.7 x 10 ⁶
% Elongation	D-638	1.6	1.0

LAY-UP PROCESS:

	Glass Laminate ⁽¹⁾	Graphite Laminate ⁽²⁾
Panel Type :	Approximately 2 ft. x 2 ft. flat panel	Approximately 2 ft. x 2 ft. flat panel
Cloth Type :	8 layer, Volan A 7500, 10oz	8 layer, 3K, 70P
Cloth Rotation :	0 degrees	0 degrees
Procedure :	VARTM, flat panel	VARTM, flat panel
Cure Schedule:	7 days @ 77°F	7days @ 77°F

CONDITIONING:

Stir well before use. This material will separate.

STORAGE:

Araldite® LY 8601 (Resin) / Aradur® 8601 (Hardener) should be stored in a dry place, in the sealed original container, at temperatures between +2°C and +40°C (+35.6°F and +104°F). Under these storage conditions, the shelf life is 2 years. The product should not be exposed to direct sunlight.

PRECAUTIONARY STATEMENT:

Huntsman Advanced Materials Americas LLC maintains up-to-date Material Safety Data Sheets (MSDS) on all of its products. These sheets contain pertinent information that you may need to protect your employees and customers against any known health or safety hazards associated with our products. Users should review the latest MSDS to determine possible health hazards and appropriate precautions to implement prior to using this material.

First Aid!

Refer to MSDS as mentioned above.

KEEP OUT OF REACH OF CHILDREN

FOR PROFESSIONAL AND INDUSTRIAL USE ONLY

IMPORTANT LEGAL NOTICE

Huntsman Advanced Materials warrants only that its products meet the specifications agreed with the user. Typical properties, where stated, are to be considered as representative of current production and should not be treated as specifications.

The manufacture of materials is the subject of granted patents and patent applications; freedom to operate patented processes is not implied by this publication.

WHILE ALL THE INFORMATION AND RECOMMENDATIONS IN THIS PUBLICATION ARE, TO THE BEST OF HUNTSMAN ADVANCED MATERIAL'S KNOWLEDGE, INFORMATION AND BELIEF, ACCURATE AT THE DATE OF PUBLICATION, nothing herein is to be construed as a warranty, whether express or implied, including but without limitation, as to merchantability or fitness for a particular purpose. In all cases, it is the responsibility of the user to determine the applicability of such information and recommendations and the suitability of any product for its own particular purpose.

The behavior of the products referred to in this publication in manufacturing processes and their suitability in any given end-use environment are dependent upon various conditions such as chemical compatibility, temperature, and other variables, which are not known to Huntsman Advanced Materials. It is the responsibility of the user to evaluate the manufacturing circumstances and the final product under actual end-use requirements and to adequately advise and warn purchasers and users thereof.

Products may be toxic and require special precautions in handling. The user should obtain Safety Data Sheets from Huntsman Advanced Materials containing detailed information on toxicity, together with proper shipping, handling and storage procedures, and should comply with all applicable safety and environmental standards.

Hazards, toxicity and behavior of the products may differ when used with other materials and are dependent on manufacturing circumstances or other processes. Such hazards, toxicity and behavior should be determined by the user and made known to handlers, processors and end users.

Except where explicitly agreed otherwise, the sale of products referred to in this publication is subject to the general terms and conditions of sale of Huntsman Advanced Materials LLC or of its affiliated companies including without limitation, Huntsman Advanced Materials (Europe) BVBA, Huntsman Advanced Materials Americas Inc., and Huntsman Advanced Materials (Hong Kong) Ltd.

Huntsman Advanced Materials is an international business unit of Huntsman Corporation. Huntsman Advanced Materials trades through Huntsman affiliated companies in different countries including but not limited to Huntsman Advanced Materials LLC in the USA and Huntsman Advanced Materials (Europe) BVBA in Europe.

Araldite and Aradur are registered trademarks of Huntsman Corporation or an affiliate thereof.

Copyright © 2010 Huntsman Corporation or an affiliate thereof. All rights reserved.

Main Office :
Huntsman Corporation
10003 Woodloch Forest Dr
The Woodlands, TX 77380
888-564-9318

www.huntsman.com/advanced_materials
advanced_materials@huntsman.com