

Resin XW 1155-1

Aradur™ HY 1473

Araldite® Casting Resin System (Expandable Epoxy Casting System)

General	Filled, expandable epoxy casting system for processing and curing at room temperature or slightly higher temperatures.
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Applications	Proximity switches Chokes / Main filters Capacitors
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Features	Good resistance to cyclic temperature variations Excellent shrinkage behavior Excellent electrical properties in combination with ferrite cores
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Typical Properties*

Resin XW 1155-1

(Modified, solvent free, epoxy resin containing mineral fillers)

Viscosity at 25°C, mPas	90,000
Specific gravity at 25°C, g/cm ³	1.7
Flash point, °C	>200
Filler content, %	61
As supplied form	Beige, highly viscous liquid

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(Modified hardener based on polyamidoamine)

Viscosity at 25°C, mPas	1,200
Specific gravity at 25°C, g/cm ³	0.98
Flash point, °C	119
As supplied form	Yellow brown liquid

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

Packaging & Storage

Store the components in a dry place at 18-25°C, in tightly sealed original containers. Under these conditions, the shelf life will correspond to the expiry date stated on the label. After this date, the product may be processed only after reanalysis. Partly emptied containers should be tightly closed immediately after use. Since fillers tend to settle out, filled products are best stored at temperatures of 5 to 20°C. Contact Customer Service for packaging information.

Processing

Because of the tendency to sedimentation of the filler, pre-filled components in principle require stirring before removal from the original containers. To avoid errors in dosage this step is especially important when removing only part of the contents.

Prior to mixing, the resin component is preferably heated to about 40°C. The hardener component is kept at room temperature. A metering unit is used to feed resin and hardener into a dynamic mixer.

The curing and expansion reaction will immediately be initiated after mixing both components.

The expansion behavior of the casting system is dependent on the casting temperature of the mixture and the gelification temperature. By increasing both temperatures above 40°C the expansion will be reduced.

Mix ratios

	Parts by weight	Parts by volume
Resin XW 1155-1	100	100
Aradur™ HY 1473	18	32

Processing data (Guideline values)	Initial viscosity, mPa.s	
	@ 25°C	6, 500
	@ 40°C	3,000
	Pot life up to 20,000 mPa.s, min	
	@ 25°C	32
	@ 40°C	24
	Gel time* (Gelnorm, 20 g mixture), min	
	@ 40°C	17
	Minimum cure time, hours	
	@ 25°C	24
	@ 40°C	12
	@ 60°C	4

*measurement without foaming agent

Physical Properties (typical values)	Guideline values determined on standard test specimens cured @ 24 h/25°C + 6 h/60°C	
Colour of casting		beige
Specific gravity at 25°C, g/cm ³		0.8
Glass transition point, T _g , °C		60
Flexural strength		
max. bending stress at 25°C, N/mm ²		8
surface strain (failure) at 25°C, %		1.2
Tensile strength		
max. tensile stress at 25°C, N/mm ²		15
Flammability		HF-1 (6 mm)
Water absorption		
1 day at 23°C, %		0.2
30 min at 100°C, %		0.8

Electrical Properties (typical values)		
Thermal conductivity at 33°C, W/mK		0.2
Coefficient of linear thermal expansion		
@ 22-50°C		47 x 10 ⁻⁶
Electrolytic corrosion, grade		A-1
Volume resistance at 23°C, Ω·cm		2 x 10 ¹⁵
Tracking resistance, CTI		> 600
Electric strength		
20 s value for 2 mm at 23°C, kV/mm		6 plate (50 Hz)

**Handling/Safety
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 material safety data sheets.

Resin XW 1155-1

Warning! Causes skin and eye irritation. May cause allergic skin reaction. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling.

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Caution! Harmful if swallowed, or if absorbed through the skin. Do not get in eyes. Avoid contact with skin and clothing. Avoid breathing vapor or mist. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling.

First Aid**In case of contact:**

Eyes: Flush with plenty of water for 15 minutes and get prompt medical attention.

Skin: Wash thoroughly with mild soap and water. Remove contaminated clothing and launder before reuse. Discard contaminated shoes and other articles made of leather.

Inhalation: Remove person to fresh air.

Ingestion: Do not induce vomiting. Dilute with plenty of water and contact a physician immediately. Never give anything by mouth to an unconscious person.

Other: Referral to physician is recommended if there is any question about the seriousness of an injury

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Resin XW 1155-1
with Aradur™ HY 1473
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