

**Advanced Materials****Araldite® CW 5715 US  
Aradur® HY 5716 US System****HIGH TEMPERATURE FILLED EPOXY ENCAPSULATION SYSTEM****GENERAL :**

Araldite® CW 5715 US with Aradur® HY 5716 US System is a filled, high temperature encapsulation system whose toughened characteristics results in superior anti-crack propagation.

**BENEFITS :**

- Superior anti-crack propagation
- Exceptional thermal shock resistance
- Very good impregnation capability
- Low-abrasive fillers
- Excellent high temperature endurance
- Good thermal endurance
- Good dielectric properties

**APPLICATIONS :**

- Construction of jigs, nesting and holding fixtures
- Fillets for metal patterns
- Potting
- Drill bushings
- General repair of tools, dies, jigs, fixtures, models, and prototypes
- Patching of concrete
- Repair of leaks in pipe and ductwork
- Filling cracks in metal casings

**TYPICAL PROPERTIES\* :****Araldite® CW 5715 US System**

Viscosity @ 60 °C, cPs	20,000 – 33,000
Specific gravity, g/cm <sup>3</sup>	1.87 – 1.97
As supplied form	Paste
Color	Black

**Aradur® HY 5716 US System**

Viscosity @ 25 °C, cPs	50 -90
Specific gravity, g/cm <sup>3</sup>	1.15 – 1.18
As supplied form	Liquid
Color	Amber

**Mixed**

Gel time at 90 °C, min	78 – 108
Tg, °C	>= 125

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

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**PACKAGING & STORAGE :**

The products described in this instruction sheet should be stored in a dry place and, whenever possible, in the tightly closed original containers. Under these conditions their shelf lives will be one year from date of shipping. Contact Customer Service for packaging information.

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**SYSTEM PREPARATION**

Prefilled components should be stirred and homogenized in the original containers prior to use.

Highly-filled components are heated to 60° to 80°C in the original container (e.g. overnight in an oven) to facilitate stirring and removal.

To prepare the casting mix, the resin component should be homogenized in holding tank A at 80° to 90°C under a vacuum of 1 to 5 mbar, the hardener component in holding tank B at 30° to 40°C and a vacuum of 1 to 5 mbar. A meter should be used to feed the resin and hardener components to an impeller mixer.

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**MIX RATIOS**

	Parts by weight	Parts by volume
Araldite® CW 5715 US System	100	100
Aradur® HY 5716 US System	27	44

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**PROCESSING DATA**

Average values

Initial viscosity, cPs	
@ 25 °C	8,000
@ 60 °C	350
@ 80 °C	120
Recommended cure time, hours	
@ 80 °C	4
+ @ 150 °C	2
or	
@ 85 °C	3
+ @ 150 °C	2

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**PHYSICAL PROPERTIES**

Typical values

Hardness, Shore D	90
Tensile strength at break, psi	10,000
Elongation at break, %	0.95

Flexural strength, psi	14,500
Surface strain, %	1.3
E-modulus in flexure, psi	$1.17 \times 10^6$
Tg, °C	134
Coefficient of thermal expansion, °C	$38 \times 10^{-6}$
Thermal conductivity, Cal/sec.cm.°C	$13.8 \times 10^{-4}$
Water absorption by weight, %	0.03

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**ELECTRIC PROPERTIES**

## Typical values

Volume resistivity, $\Omega$ -cm	$2.0 \times 10^{15}$
Surface resistivity, $\Omega$	$3.5 \times 10^{15}$
Dielectric strength, volts/mil	595
Dielectric constant	4.2
Dissipation factor	0.011
Tracking resistance	
IEC 112, test solution A	CTI > 600 – 0.1
IEC 112, test solution B	CTI > 600M – 0.1
Electrolytic corrosion, grade	A-1

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**HANDLING/SAFETY PRECAUTIONS****Araldite® CW 5715 US System**

**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. Do not breathe dust. Wash thoroughly after handling.

**Aradur® HY 5716 US System**

**Warning! Causes eye, skin and respiratory irritation.** May cause allergic skin reaction. Avoid contact with eyes, skin, and clothing. Do not breathe dust. Avoid breathing vapor or mist. Avoid prolonged or repeated contact with skin. Keep container closed. Use adequate ventilation. Wash thoroughly after handling.

**Caution**

Avoid any contact with the uncured materials, people with particularly sensitive skin may be affected. Wear eye protection and impervious gloves when handling. Wash thoroughly after handling. Adequate ventilation in the working area is recommended.

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**FIRST AID :**

**Ingestion:** Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

**Skin:** Immediately wash with soap and water. Remove contaminated clothing and launder before reuse. Destroy contaminated shoes. Seek immediate medical attention.

**Inhalation:** Remove to fresh air. Seek immediate medical attention.

**Eyes:** Immediately flush eyes with water for at least 15 minutes. Seek immediate medical attention.

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