Laboratory Data Sheet

Armstrong A-271

Epoxy Resin Adhesive

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PRODUCT DESCRIPTION

Armstrong A-271 epoxy adhesive, due to its wetting ability, is particularly recommended for bonding glass; however, it may be used to bond most metals, plastics, wood, ceramics, etc. A-271 exhibits good moisture and chemical resistance and is suitable for use at intermediate "in service" temperatures (up to 225ºF). Because of its low shrinkage and low exotherm, it can be used as a potting compound where glass and strain sensitive elements are being potted. A-271 is a clear amber system.

Suggested Cure Schedule for Armstrong A-271

Room Temperature		Elevated Temperature	
Optimum	**Fast***	**Optimum**	**Fast**
2 weeks	Overnight	30 min @ 200ºF	5 min @ 300ºF

Instructions

1. Surfaced to be bonded should be clean and dry. For critical applications refer to Bulletin No. 964.
2. Thoroughly mix A-271 Part B with A-271 Part A in a clean, discardable container, using correct mix ratio. Avoid introduction of excess air.
3. Apply the adhesive to surfaces to be bonded (preferably both surfaces) and press together. Light clamping may be used to keep parts in position during cure.
4. Cure as desired. Refer to cure schedule.

TYPICAL PHYSICAL PROPERTIES

	A-271 "A"	**A-271 "B"**
Viscosity @ 77ºF (poise)	100-160	120-180
Specific Gravity	1.12-1.20	.95-.98
Color	Amber	Dark Amber

TYPICAL PHYSICAL PROPERTIES OF MIXED SYSTEM

Mix Ratio (by wt or vol)	7 parts A 3 parts B
Mix Viscosity	14000 poise
Minimum Working Life (100gm @ 77ºF)	90 mins
Minimum Working Life (1 lb. @ 77ºF)	60 mins

TYPICAL PHYSICAL PROPERTIES OF CURED SYSTEM

Specific Gravity	1.10
Tensile Shear Strength @ 77ºF (al/al) (psi)	2800
Tensile Shear Strength @ -60ºF (al/al) (psi)	2000
Tensile Shear Strength @ 180ºF (al/al) (psi)	2500
Bond Strength (psi)	2500
Tensile Strength (psi)	8700
Elongation (%) Maximum	10
Thermal Coefficient of Expansion	4.9×10^{-5}
Cleavage (psi)	1500

*Cured 30 minutes at 200ºF

Storage

Store below 25ºC out of sunlight and in original unopened containers. Refer to packaging specific quote for shelf life information.

Data Ranges

The data contained herein may be reported as a typical value and/or range. Values are based on actual test data and are verified on a periodic basis.

Note

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