

# ADHESIVES

# techniglue® R28

TOUGHENED EPOXY ADHESIVE

TECHNIGLUE R60 is a solvent free, epoxy resin, specifically formulated for use with TECHNIGLUE hardeners to cure at room temperature, and produce high-strength, waterproof bonds. The thixotropic nature of the adhesive provides good gap filling and hold-up, on vertical surfaces.

TECHNIGLUE H60 hardeners are available with two different curing rates, Fast and Slow allowing working times to be adjusted according to the job size and working temperature.

TECHNIGLUE R60 is suitable for bonding structural elements fabricated from wood, concrete, fibreglass, stone & marble, pottery, metal (ferrous and nonferrous) and some plastics.

### MIX RATIO

1 part hardener to 2 parts resin by volume.

Take care to assure that the components are thoroughly mixed to a uniform colour before applying. It is easier to judge the proportions by placing three equal quantities side by side (two of resin and one of hardener).

**Note:** Care should be taken when dispensing and mixing. Do not attempt to control the cure time by altering the hardener ratio. Contact ATL Composites for specific information.

UNCURED PROPERTIES				
		R60	R60F Fast	H60S Slow
Physical State		White Thixotropic Gel	Amber Thixotropic Gel	Amber Thixotropic Gel
Viscosity mPas	@ 25°C	420,000	600,000	600,000
Specific Gravity	g/ml@ 25°C	1.12	1.01	1.00

CURED CHARACTERISTICS				
		R60F Fast	H60S Slow	
Pot Life	@ 25°C - 100g (in Air)	20 Minutes	40 Minutes	
Cured to a Solid State	@ 25°C	8 Hours	12 Hours	
Mix viscosity mPas	@ 25°C	280,000	175,000	
Shore D Hardness	@ 1 day	81	68	
	@ 2 weeks	85	83	
Glass Transition Temp (Tg)	After 24 hours @ 25°C	33°C	21°C	
	After 2 weeks @ 25°C	49°C	43°C	
	24 hours @ 25°C + 16 hours @ 50°C	65°C	52°C	
	+ 18 hours @ 80°C	68°C	57°C	

# ADHESIVES

# techniglue® R28

TOUGHENED EPOXY ADHESIVE

## CURED PROPERTIES

		R60F Fast	H60S Slow
Tensile Strength	ASTM D638-97	67 MPa	55 MPa
Tensile Elongation at Break	ASTM D638-97	6%	7%
Flexural Strength	ASTM 790-03	95 MPa	80 MPa
Flexural Strain	ASTM 790-03	4%	5%
Compressive Strength	ASTM 695-96	55 MPa	51 MPa
Compressive Load	ASTM 695-96	10630 N	9819 N
Tensile Strength	ASTM D3528	20 MPa	24 MPa
Tensile Lap Shear Strength	ASTM D1002 - Aluminium	13 MPa	13 MPa
Tensile Lap Shear Strength	ASTM D1002 - Mild Steel	20 MPa	24 MPa

## APPLICATION

The surfaces to be bonded should be dry and free from any contaminants such as oil or dust. Fibreglass, timber, painted, or metal surfaces should be thoroughly sanded to provide a good key. Concrete surfaces should be wire brushed to remove Latinate. Apply sufficient mixed epoxy to one or both of the surfaces to assure intimate contact between the bonding surfaces. Excessive clamping pressures should be avoided. Components need only be held firmly to avoid movement during the curing process.

## COVERAGE

Depending on porosity and surface roughness, one litre of mixed TECHNIGLUE R60/H60 will cover approximately three square metres.

## PACK SIZES

Order Code		Order Code		PACK
<b>RESIN</b>		<b>HARDENER</b>		
RA60	500 ml	HA60F Fast	250 ml	750 ml
RB60	1 L	HB60F Fast	500 ml	1.5 L
RC60	4 L	HC60F Fast	2 L	6 L
		HC60S Slow	2 L	6 L
RD60	20 L	HD60F Fast	10 L	30 L
		HD60S Slow	10 L	30 L

## CLEAN UP

Uncured TECHNIGLUE R60 resin and H60 hardener mixture can be cleaned up with warm water.

## STORAGE

TECHNIGLUE R60 resin and H60 hardeners will keep for 2 years, if kept in original containers at room temperature (15°C to 32°C), and out of direct sunlight. Containers should be tightly sealed to prevent moisture absorption.

## HEALTH AND SAFETY

TECHNIGLUE R60 resin and R60 hardener have moderate sensitising potential, and should be kept out of the eyes and off the skin.

- Use with good ventilation and adequate safety equipment including impervious gloves and safety glasses.
- If skin contact occurs, remove contaminated clothing immediately, and wash the affected area thoroughly with water, avoiding the use of solvents except in the case of massive contamination.
- If eye contact occurs, immediately flush with running water for at least 15 (fifteen) minutes and seek medical advice.
- If swallowed:

**Resins** - DO NOT induce vomiting, and contact a doctor or the Poisons Information Centre.

**Hardeners** - DO NOT induce vomiting, give plenty of milk or water and contact a doctor or the Poisons Information Centre.

NOTE: Our products are intended for sale to industrial and commercial customers. We request that customers inspect and test our products before use and satisfy themselves as to contents and suitability. Nothing herein shall constitute a warranty, express or implied, including any warranty or merchantability or fitness, nor is protection from law or patent to be inferred. All patent rights are reserved. The exclusive remedy for all proven claims is replacement of our materials and in no event shall we be liable for special or consequential damages.