

TECHNIREZ R1035 is a pre-filled, solvent free, epoxy casting resin specifically designed for use with H2403 hardener that will cure at ambient temperature, to produce a hard resilient casting that exhibits excellent mechanical and electrical properties.

R1035 has been formulated for applications where elevated thermal performance is required and is typically used for the encapsulation of instrument transformers, lighting transformers, small power transformers, and for the casting of electrical switch gear components.

MIX RATIO

9 parts H2403 hardener to 100 parts resin by weight

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.

Note: TECHNIREZ R1035 resin is prone to crystallization. Please see storage information.

UNCURED PROPERTIES		
	R1035	H2403
Physical State	White liquid	Clear Liquid
Viscosity mPas@25°C	17,000	15
Specific Gravity g/ml@25°C	1.69	0.93
Flash Point	155°C	100°C

CURE CHARACTERISTICS	
	H2403
Pot Life - 100g @ 25°C (in air)	230-240 minutes
Mix viscosity mPas @ 25°C	8500-9000
Tg ₂ by DSC*	136°C

*Post Cure 24hrs @ 25°C + 8hrs @ 50°C + 3hrs @ 90°C + 3hrs @ 120°C

MECHANICAL PROPERTIES	
	H2403
Tensile Strength	42 MPa
Compressive Strength	122 MPa
Flexural Strength	71 MPa
Flexural Modulus	7524MPa

ELECTRICAL PROPERTIES*	
	H2403
Volume Resistivity (OHMS/cm @ 25°C)	1x10 ¹⁵
Minimum Dielectric Strength Hz (KV/mm @ 50Hz @ 25°C)	16-18
Dielectric Constant (50Hz @ 25°C)	4.1
Power Factor Tan (50Hz @ 25°C)	0.019
@ 60°C	0.177

* Typical values- not to be construed as specification

APPLICATION

The resin and hardener must be accurately measured and thoroughly mixed before application to disperse any filler that may have separated during transportation – 4 to 5 minutes. This can be achieved by using a low speed drill.

Care should be taken to avoid excessive air entrapment and to ensure that no unmixed resin or hardener is left on the sides, or the bottom, of the container, as this can lead to soft spots in the casting.

MIX QUANTITIES

R1035	H2403
5 kg	0.45 kg
25 kg	2.25 kg

PACK SIZES			
Order Code		Order Code	
Resin		Hardener	
RC1035	5 kg	HC2403	1 kg
RD1035	25 kg	HD2403	4.5 kg

STORAGE

R1035 is prone to crystallization and should be stored, and temperature maintained, at a minimum of 25°C to prevent crystallization. Limiting temperature fluctuations will also reduce the tendency to crystallize.

If crystallization does occur, R1035 should be heated to 60°C - 80°C overnight (12 hours) to re-liquify the system. Before allowing the material to cool down, ensure that all potential crystals have melted and can no longer act as seeds. Carefully check the container sides, the container bottom and the areas around the caps when inspecting for signs of crystallization that could nucleate additional crystal growth.

TECHNIREZ H2403 hardener 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

TECHNIREZ R1035 resin and H2403 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. 16.8.17

