

TECHNIREZ R2514 is a solvent free, liquid epoxy resin specifically designed for use with H2428 and H2405 hardeners, that will cure at room temperatures for tooling and foundry applications.

The low viscosities of the resin and hardener mixtures, enables the incorporation of a variety of fillers for casting purposes, or the use of fibreglass for laminating applications. The resin and hardener mixture will cure to form hard, high impact resistant castings that exhibit excellent mechanical properties.

Typical applications include the casting of foundry patterns, plugs, moulds and checking tools.

MIX RATIO

20 parts H2428 hardener to 100 parts resin by weight
20 parts H2405 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.

UNCURED PROPERTIES			
	R2514	H2428 medium	H2405 slow
Physical State	Clear low viscosity liquid	Yellow low viscosity liquid	Blue low viscosity liquid
Viscosity mPas@25°C	1,600	400	110
Specific Gravity g/ml@25°C	1.14	0.97	0.95

CURE CHARACTERISTICS		
	H2428	H2405
Pot Life - 500g @ 25°C	20-30 mins	60-70 mins
Demould Time @ 25°C	12 hours	12 hours
Cast Depth*	15 mm	30 mm
Mix Viscosity mPas@25°C	1200	550
Shore D Hardness	79	78
HDT	45-50°C	45-50°C

TYPICAL CURED PROPERTIES		
	H2428	H2405
Compressive strength	80-100 MPa	75-95 MPa
Flexural strength	80-110 MPa	70-100 MPa
Modulus of elasticity	3,000-4,000 MPa	2,600-3,600 MPa
Linear shrinkage	0.1- 0.3 %	0.1- 0.3 %
Coefficient of Thermal Expansion	90-95 (10 ⁻⁶ mm/mm°C)	90-95 (10 ⁻⁶ mm/mm°C)
Moisture Absorption (10 days @ 20°C)	0.5 %	0.6 %

* Typical values, not to be construed as specification

APPLICATION

Moulds should be prepared with a suitable wax release agent prior to casting.

There should be no variation from the mix ratio on this data sheet. Any variation in the proportioning will result in variations to the physical properties of the cured system.

The resin and hardener should be thoroughly mixed together prior to applications. Care should be taken to avoid excessive air entrapment and to ensure that unmixed resin or hardener is not left on the sides or the bottom of the container, as this can lead to soft spots in the casting or laminate. Paper cups, plastic jugs, and plastic buckets are ideal mixing vessels.

Slowly pour the mixed resin and hardener into the deepest corner of the mould. This will ensure that the air will be carried out of the mould as it is filled.

The curing times quoted in this data sheet can vary depending on the volume of material used, and the ambient temperature prevailing at the time of casting.

PACK SIZES			
Order Code			
Resin		Hardener	
RC 2514	5 kg	HC 2428	1 kg
RD 2514	25 kg	HD 2428	5 kg
RF 2514	200 kg	HE 2428	25 kg
		HD 2405	5 kg
		HE 2405	25 kg

STORAGE

TECHNIREZ R2514 resin and H2428 and H2405 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

TECHNIREZ R2514 resin and H2428 and H2405 hardeners 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. 12.07.18

