

TECHNIREZ R2578 is a low density, epoxy, CNC Tooling Paste specifically designed to be machine applied. Excellent machining properties allow a high quality surface finish to be produced for moulds and patterns in the marine, wind and automotive industries.

The paste is solvent free, has low exotherm and shrinkage, and can be applied up to 40mm thick on a vertical surface. When applied at 25°C, R2578 can be machined in less than 24 hours, offering optimum turnaround times, to produce a seam-free, uniform surface.

**MIX RATIO**

90 parts hardener to 100 parts resin by weight  
 1 part hardener to 1 part resin by volume

Take care to assure that the components are thoroughly mixed to uniform colour before applying.

**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		
	R2578	H2578
Physical State	blue viscous paste	yellow viscous paste
Viscosity mPas @ 25°C	331,000	260,000
Specific Gravity g/ml @ 25°C	0.68	0.61

CURE CHARACTERISTICS	
Cured Colour	Green
Pot Life- 500ml @ 25 °C (in air)	1 hour
Cured to a solid state	<24 hours
Minimum Application Temp.	15°C
Shore D Hardness - 3 days @ 25°C	56
+ 8 hrs @ 60°C	60
+ 8 hrs @ 80°C	62
HDT 3 days @ 25°C	50°C
+ 8 hrs @ 60°C	57°C
+ 8 hrs @ 80°C	65°C
Coefficient of Thermal Expansion (x10 <sup>-6</sup> m/m per °C)	110
Mixed Specific Gravity	0.64 - 0.66
Linear Shrinkage	TBC
Machinability	12-24 hours*

\* Depending on ambient conditions

CURED PROPERTIES	
Compressive Strength (MPa) 3 days @ 25°C	19
+8hrs @ 60°C	24
+8hrs @ 80°C	26
Flexural Strength (MPa) 3 days @ 25°C	13
+8hrs @ 60°C	19
+8hrs @ 80°C	22

PEAK EXOTHERM	
20 mm	32°C
30 mm	38°C
40 mm	45°C

(Initial resin temp - 25°C)

**SUBSTRATE PREPARATION**

Expanded polystyrene (EPS) and Styrofoam must be sealed with WEST SYSTEM® R105 resin and H206 slow hardener, and it is recommended that 502 black pigment be used to provide a visible coverage guide. Allow the sealer coat to reach a firm gelled state prior to application of the R2578.

For larger patterns and moulds, it is recommended that the substrate surface be sheathed with an E-fibre glass and KINETIX® epoxy laminate.

**APPLICATION**

Technirez R2578 resin and H2578 hardener is intended to be applied via dedicated mixing equipment, such as Graco, Tartler, 2KM, Dekumed, Dopag. Manual mixing is not recommended as it will result in significant air inclusion due to the high viscosity of the paste.

R2578 is typically applied from 15mm to 25mm thick depending on the tool size and whether the substrate has been sheathed. Application thickness may also vary depending on substrate characteristics such as compression strength and thermal stability.

**COVERAGE**

Depending on the substrate surface profile, 150 ltrs of mixed TECHNIREZ R2578 will cover approximately 10m<sup>2</sup> at a thickness of 15mm. Allowances should be made, when calculating the required project quantities, for machine priming and purge.

**SURFACE REPAIR**

Large damage should be repaired using the same technique as the initial paste application. Smaller repairs can be performed using TECHNIFILL XP, a hand-mixed, and applied, filler. Please contact ATL Composites for specific repair preparation procedures.

To produce a Class A surface on the TECHNIREZ R2578 tool surface, ATL Composites recommends the application of Duratec Surfacing Products :

**Sealing**

- 823-A DURATEC Sealer

**Priming (choice of 3 products)**

- 714-002 DURATEC White Surface Primer
- 707-051 DURATEC EZ Sanding Primer
- 1794-005 DURATEC White Vinyl Ester Primer

**Top Coating**

- 1902-045 DURATEC Black Vinyl Ester Topcoat

**Buffing & Polishing**

- Aquabuff 1000 Fast Cut
- Aquabuff 2000 Ultra Fine Polish

**CLEAN UP**

Equipment can be cleaned with epoxy cleaning solvent or general purpose thinners.

Solvent resistance of lines and seals to the selected solvent, should be determined by the pump manufacturer.

**PACK SIZES**

Order Code			
Resin		Hardener	
RF 2578	180 L	HF 2578	180 L

\*Custom sizes available on request

**STORAGE**

TECHNIREZ R2578 resin and R2578 hardener will keep for 1 year 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 R2578 resin and H2578 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 ATL's 845 hand cleaner and 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. 28/08/20

