

TECHNIREZ R2515 is a solvent free, liquid epoxy resin specifically designed for use with H2402, H2403 and H2415 hardeners, that will cure at temperatures ranging from 100° to 120°C for tooling applications.

Typical applications include the casting and laminating of jigs and tools that will be used in high temperature applications, such as pre-preg moulds and vacuum forming tools.

MIX RATIO

25 parts of H2402 hardener to 100 parts of resin by weight
 25 parts of H2403 hardener to 100 parts of resin by weight
 16 parts of H2415 hardener to 100 parts of 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 | | | | |
|-----------------------------|-----------------|----------------|----------------|----------------|
| | R2515 resin | H2402 hardener | H2403 hardener | H2415 hardener |
| Physical State | Clear liquid | Amber liquid | Clear liquid | liquid |
| Viscosity mPas@ 25°C | 10,000 - 12,000 | 120 - 155 | 15 - 20 | 15 - 25 |
| Specific Gravity g/ml@ 25°C | 1.12 | 1.06 | 1.06 | 0.98 |
| Flash Point | 250°C | 100°C | 100°C | 100°C |

| CURE CHARACTERISTICS | | | |
|--------------------------|--------------|-----------------------|--------------|
| | H2402 | H2403 | H2415 |
| Pot Life-100g @ 25°C | 40 - 50 mins | 120 - 130 mins | 25 - 35 mins |
| Demould Time @ 25°C | 12 hrs | 12 hrs + 3 hrs @ 40°C | 6 hrs |
| Mix Viscosity mPas@ 25°C | 4,100 | 2,600 | 1,900 |
| Shore D Hardness | 85 | 87 | 87 |
| HDT* | 60 - 110°C | 60 - 150°C | 60 - 110°C |

* R2515 resin and H2403 hardener mixture may cure to a hard brittle "B" stage at ambient temperature, but after post curing at elevated temperatures, will exhibit tough resilient properties

| *POST CURE SCHEDULE | | | |
|---------------------|----------|----------|----------|
| | H2402 | H2403 | H2415 |
| 12 hours @ 15-20°C | 60°C HDT | 60°C HDT | 60°C HDT |
| + 4 hours @ 80°C | 110°C | 120°C | 110°C |
| + 4 hours @ 100°C | 110°C | 150°C | 110°C |

TYPICAL CURED PROPERTIES

| | H2402 | H2403 | H2415 |
|-------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| Tensile strength | 65 - 75 MPa | 75 - 85 MPa | 65 - 75 MPa |
| Tensile modulus | 2,457 MPa | 2,757 MPa | 2,457 MPa |
| Compressive strength | 80 - 100 MPa | 80 - 100 MPa | 90 - 100 MPa |
| Flexural strength | 90 - 110 MPa | 90 - 110 MPa | 90 - 100 MPa |
| Linear shrinkage | 0.5% | 0.5% | 0.5% |
| Coefficient of Thermal Expansion | 90 - 95 (10 ⁻⁶ mm/mm°C) | 90 - 95 (10 ⁻⁶ mm/mm°C) | 90 - 95 (10 ⁻⁶ mm/mm°C) |
| Moisture Absorption (10 days @20°C) | 0.4% | 0.2% | 0.5% |

**ELECTRICAL PROPERTIES (50Hz@25°C)
R2515 / H2403**

| | |
|------------------------------------|----------------------|
| Minimum Dielectric Strength | 16 19kV/mm |
| Dissipation Constant 120°C | 3.8 - 4.2 |
| Power Factor (tan) | 0.008 - 0.03 |
| Volume Resistivity (ohms/cm) 120°C | 3 x 10 ¹² |

PACK SIZES

Order Code

| Resin | Hardener |
|----------------|----------------|
| RC 2515 4 kg | HC 2402 1 kg |
| RD 2515 18 kg | HD 2402 5 kg |
| RF 2515 200 kg | HE 2402 25 kg |
| | HC 2403 1 kg |
| | HD 2403 4.5 kg |
| | HE 2403 22 kg |
| | HC 2415 500 g |
| | HD 2415 2.5 kg |

STORAGE

TECHNIREZ R2515 resin and H2402,H2403 and H2415 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 R2515 resin and H2402, H2403 and H2415 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 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. 27/02/07

