

KINETIX R240 is a low viscosity resin specifically formulated for use with H126, H160, H161, H162 hardeners to offer a variety in pot-life and working times as a room temperature laminating system.

Designed for laminating, R240 resin and hardeners produce stronger, stiffer and tougher laminates than conventional general purpose epoxy systems. Excellent mechanical properties are produced in carbon fibre, aramid and fibreglass laminates.

MIX RATIO

25 parts 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

| | R240 | H126 SuperFast | H160 Medium | H161 Slow | H162 Super Slow |
|---------------------------------|--------------|-------------------------|--------------------------|--------------------------|--------------------------|
| Physical State | Clear liquid | Clear pale brown liquid | Clear pale yellow liquid | Clear pale yellow liquid | Clear pale yellow liquid |
| Viscosity mPas @ 25°C | 1600 | 160 | 30 | 25 | 20 |
| Specific Gravity g/ml @ 25°C | 1.15 | 0.99 | 0.95 | 0.94 | 0.93 |

CURE CHARACTERISTICS

| | H126 | H160 | H161 | H162 |
|---------------------------------|------------|-----------------|-----------------|-----------------|
| Pot Life - 100g @ 25°C (in air) | 20 minutes | 35 minutes | 50 minutes | 75 minutes |
| Thin-laminate OpenTime @ 25°C | 2 hours | 4 hours 20 mins | 4 hours 40 mins | 5 hours 30 mins |
| Demould time @ 25°C | 5 hours | 12 hours | 12 hours | 14 hours |
| Mix viscosity mPas @ 25°C | 880 | 600 | 470 | 400 |
| Shore D Hardness -1 day | 79 | 80 | 74 | 76 |
| - 2 weeks | 82 | 82 | 76 | 77 |
| HDT after 1 day @ 25°C | 49°C | 42°C | 40°C | 39°C |
| 2 weeks @ 25°C | 56°C | 49°C | 49°C | 47°C |
| 16 hrs @ 40°C | 65°C | 57°C | 55°C | 58°C |
| 16 hrs @ 50°C | 75°C | 67°C | 65°C | 66°C |
| 8 hrs @ 60°C | 79°C | 73°C | 73°C | 71°C |
| 8 hrs @ 80°C | 89°C | 79°C | 78°C | 82°C |
| Ultimate HDT | 95°C | 82°C | 82°C | 87°C |

MONITORING OF CURE

A laminator wishing to monitor progress of cure has a number of on the spot options open to him. Small test aliquots of mixed resin can be placed in waxed lids during lamination. These should be subjected to the same cure conditions as the actual laminate, and later compared with standard samples which are known to be fully cured. The samples should be flat on the bottom and approximately 2 to 3 mm thick.

Allowance should be made for the possible effect of foam core insulating the curing resin, and reducing the cure of the inner layer.

To monitor the development of Heat Distortion Temperature (HDT) immerse the sample in a container of warming water, noting the temperature at which the sample becomes rubbery. Providing sample thickness is kept constant, this simple technique gives surprisingly reproducible results

The cure time will vary based on the resin and hardener selected, the ambient temperature and laminate thickness.

CALCULATING RESIN/HARDENER FOR A FIBREGLASS LAMINATE

As a rough rule for the amount of resin/hardener required to achieve proper wetting out and consolidation of a laminate, use a 1:1 ratio of fibreglass weight per m² to resin/hardener weight, plus wastage

e.g. 1m² of 600gsm biaxial E-fibreglass will require 600grms of mixed resin and hardener + a 10% wastage factor

PACK SIZES

| Order Code | | Order Code | | PACK |
|--------------|-------|-----------------|-------|--------|
| Resin | | Hardener | | |
| RC 240 | 4kg | HC 126 | 1kg | 5kg |
| | | HC 160 | 1kg | |
| | | HC 161* | 1kg | |
| | | HC 162 | 1kg | |
| RD 240 | 18kg | HD 126 | 4.5kg | 22.5kg |
| | | HD 160 | 4.5kg | |
| | | HD 161* | 4.5kg | |
| | | HD 162 | 4.5kg | |
| RF 240 | 192kg | HF 126 | 48kg | 240kg |
| | | HF 160 | 48kg | |
| | | HF 161* | 48kg | |
| | | HF 162 | 48kg | |

* H161 is a Made to Order product and a minimum purchase quantity is applicable

STORAGE

KINETIX R240 resin and H126, H160, H161, H162 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 & SAFETY

KINETIX R240 resin and H126, H160, H161, H162 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. 29/01/13