

## Hardener 1074

### CLEAR EPOXY LAMINATING SYSTEM

- **Clear laminates and topcoats with room temperature curing.**
- **3 hours gel time.**
- **Very good UV resistance.**



RESOLTECH 1070 is a crystal clear epoxy laminating system formulated to produce clear laminates and high gloss coatings with good UV stability and high mechanical properties.

The 1070 system is formulated for the manufacture large composites parts or wood laminates with high-end finish aspects requirements, enhancing the appearance of the reinforcement materials used and providing good UV resistance.

The resulting laminate will be absolutely clear on carbon fibre and even transparent if applied on special Hexcel Sillionne E- glass fabrics with TF970 treatment.

A 1070 coating is a UV stable durable solution for finish aspects on carbon fibre parts with porosity revealed upon de-moulding.

The 1074 slow hardener will grant 3 hours pot life.

The viscosity is adapted for squeegee, brush or roller application, and provides a perfect bubble free surface due to its surface tension properties. The 1070 system has been formulated in order to leave virtually no free amines on the laminate. This even enables the use of any quality polyester finish coat for quick sanding on top of the laminate without inhibition of the polyester.

The 1070 1074 system may be used with filler in order to make UV resistant mortar for application such as high end “sand” swimming pools with filler/resin ratio around 10/1. Resoltech 1070 will cure at room temperature and obtain 90% of its mechanical properties after 7 days at ambient temperature. Post curing will elevate the final TG above 70°C

# Resin 1070

Hardeners 1074 & 1075S

## CLEAR EPOXY LAMINATING SYSTEM

### MIXING RATIO

	by weight	by volume
Resin 1070	100	2
Hardeners 1074	40	1

#### WARNING:

The mixing ratio must be accurately followed. It is not possible to change the ratio, it would result in lower mechanical properties.

The mixture should be thoroughly stirred to ensure full homogeneity.

It is important to note that epoxy systems tend to heat up much faster in a pot than as a thin film. It is therefore necessary to only mix the necessary amount usable within the given pot life. Keeping the mixture in flat open containers reduces the risks of exothermic reaction.

### APPLICATION

The standard procedure of working with epoxy systems applies to this system. The 1070 can be applied by squeegee, brush, roller, infused or injected. In case of laminating over a cured surface without peel ply, it is required to deglaze, clean and degrease the support prior to laminating.

It is recommended to have workshop temperature conditions between **18-25°C** in order to facilitate the mixing and the reinforcement fibers impregnation. A lower temperature will increase the viscosity of the mix as well as it's pot life. On the contrary, a higher temperature will reduce the viscosity and the pot life of the mix.

For more information, please refer to the applications technical bulletins (TechNotes), available on request.

### PHYSICAL CHARACTERISTICS @ 23°C

#### Visual Aspect

1070 :	Clear purple liquid
1074 & :	Clear liquid
Mix :	Clear purple liquid

#### Density

1070 :	1,15
1074 :	0,98 to 1,00
Mix :	1,10

#### Viscosity

1070 :	1500 mPa.s
1074 :	70 mPa.s
Mix :	400 mPa.s

# Resin 1070 Clear

## Hardeners 1074

### REACTIVITY & CURING

#### 1070 Clear + 1074

Pot life for 70mL:

Touch dry:

Hard & sandable:

Full cure:

Properties given at 25°C

3h

8 to 12h

24h @ room temperature

14 days @ 25°C or 15 hours @ 60°C

It is not advisable to post-cure the 1070 system at a temperature higher than to 60°C if working in open moulds or without moulds on a pre-shaped core. High temperature cures can result in surface tensions and deformations. 80% of the thermo-mechanical properties will be obtained after 5 days at room temperature (25°C). In order to obtain higher thermo-mechanical properties with a TG above 50°C °C, it is necessary to post-cure the laminate at the following cycle: **24h at room temperature (20-25°C) + 8h at 60°C**

The following table shows the TG obtained according to the curing cycles.

7 days @ 25°C	24h @ 25°C + 3h @60°C	24h @ 25°C + 8h @60°C	24h @ 25°C + 10h @90°C
TG 41°C	TG 48°C	TG 57°C	TG 70°C

### MECHANICAL PROPERTIES

#### Flexion (ISO 178)

Module : 2.3 GPa

Max Strength : 64 MPa

Elongation Max strength. : 4.7%

Curing 7 days at 25°C

#### Hardness

87 Shore D

Module : 3.0 GPa

Max Strength Max : 85.8 MPa

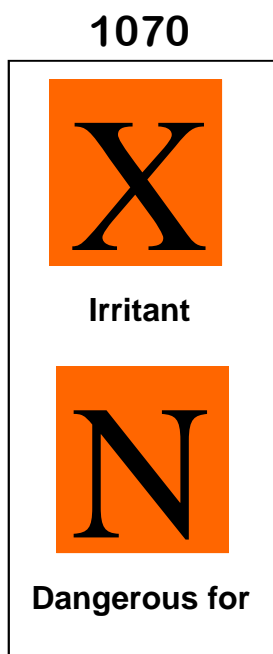
Elongation Max strength Max. : 3.1%

Curing 24h25°C+8h60°C

# Resin 1070

Hardeners 1074

## LABELLING



## PACKAGING

- Plastic jerrycane kit of 1 kg + 0.40 kg.
- Plastic jerrycane kit of 5 kg + 2kg.
- Plastic jerrycane kit of 25 kg + 10 kg.
- Steel Drum kit of 200 kg + 80 kg.
- IBC Kit 1000 kg + 2 x 200 kg

## HEALTH & SAFETY

It is advised to follow basic rules such as avoiding skin contact, wear masks when producing dust. Please read our standard health and safety sheet for more information.

In case of eye contamination, wash with water and seek medical advice.

## TRANSPORT & STORAGE

Shelf life is one year in sealed containers as provided. Keep containers sealed and away from heat and cold preferably between 10°C and 30°C in a well ventilated area.

Nota The data provided in this document is the result of tests and is believed to be accurate. We do not accept any responsibility over the mishandling of these products and our liability is limited strictly to the value of the products we manufacture and supply.



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