

resoltech 1010

Hardeners 1014 & 1016

Water based epoxy system



- Mat or High gloss primer & varnish
- 1/1 Easy mixing ratio in volume with 1014
- Uses water to clean brushes and rollers
- Extreme low viscosity will prime any porous material in depth
- May be applied on humid substrates
- 1010C version for better UV resistance

INTRODUCTION

RESOLCOAT 1010 is a unique water based epoxy system. It may be used in a very large number of applications such as **primer, varnish, veneer adhesive** but also as matrix for **self levelling compounds or mortars**. Domains of application range from marine construction, furniture manufacturing, industrial & residential construction and fine arts.

Apart from hydrophobic substrates, the 1010 system is **compatible with most supports** such as wood, concrete, plaster, stone, ceramic, metal..etc. It can be highly diluted in water so its viscosity drops extremely low, resulting in a prime choice material for priming. It is used as wood primer on new woods & timbers but also **as hardening material** when applied or injected in old woods for conservation or purposes. Less diluted, it becomes a transparent varnish highly resistant to abrasion. It will enhance the colour of woods and other materials such as ceramics or carbon fibre.

Applied in maximum 2 thin layers, it's micro-porosity to vapour will enable the 1010 to be used as a **water barrier** for materials that need to breath (wood, concrete).

RESOLCOAT 1010 is available in 2 finish versions: 1010/1014 will always be used as first priming coat and as finish coat for **high gloss** results. The 1016 hardener used as finish coat on top of the 1010/1014 will enable **mat finish aspects**.

A clearer version, 1010C with 1014C and 1016C hardeners is also available. It is particularly recommended when color of substrat and UV resistance are essential (example : driftwood).

RESOLCOAT 1010 **does not contain any solvents**, has no VOC emissions and does not smell when applied unlike any other varnishes. This new generation varnish offers a harmless alternative to all solvented products. Cleaning of tools shall be done with warm water and soap.

MIXING RATIO

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.

| Systems | 1010/1014 | 1010/1016 |
|------------------------|-----------|-----------|
| Mixing ratio by weight | 1/1 | 2/3 |
| Mixing ratio by volume | | |

APPLICATION

- It is recommended to use the products at temperatures above 17°C in order to ease the water evaporation.
- Lower application temperatures (15°C minimum) are possible if a good ventilation is ensured.
- In case of low temperatures or very damp environments, it is recommended to make a small test before industrial size application in order to check that evaporation of the water is possible.

WARNING : Always mix the resin and the hardener before adding water.

Never use the 1016 hardener in the first coat

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PRIMER:

- For priming applications we recommend the following mixing ratio, 1 volume of resin for 1 volume of **hardener 1014**, then dilute with 1 volume of water.
- Application with brush or roller.

VARNISH AND TOPCOATS:

- For **high gloss** applications we recommend the following mixing ratio, 1 volume of resin, 1 volume of **hardener 1014**, then dilute with 1 volume of water.
- For **mat finish** applications we recommend the following mixing ratio, 2 volumes of resin, 3 volumes of **hardener 1016**, then dilute with 2 volumes of water.
- L'application peut se faire au pinceau ou au rouleau.

MORTARS AND SELF-LEVELLING COMPOUNDS:

- Add 10 to 20% of mixed 1010-1014 to the substrate.
- To fluidize the mix add only a few % of water.
- To smoothen the surfaces, wet the spatula and smoothen before drying.

PHYSICAL CHARACTERISTICS

1 Visual aspect

1010 :

White liquid

1014 :

Beige liquid

1016 :

Beige liquid

2 Density

| References | 1010 | 1014 | 1016 |
|--------------------|------|------|------|
| Density at 23°C | 1.1 | 1.1 | 1.1 |
| Mix density à 23°C | - | 1.1 | 1.1 |

ISO 1675, ± 0.05 tolerance

DRYING AND HARDENING

| Systems | 1010/1014 or 1010/1016 | 1010C/1014C or 1010C/1016C |
|--------------------------------|------------------------|----------------------------|
| Pot life at 25°C on 100g | 1h | 6h50min |
| Drying on film at 25°C on film | 15min | 45min |
| Overcoat at 25°C on film | 5h | 6h |
| Complete reticulation at 25°C | 24h to 48h | 24h to 48h |

Reactivity measurements realized on Trombotech*

RETICULATION & POST-CURING

| Systems | 1010 / 1014 | 1010 / 1016 |
|-------------------|-------------|-------------|
| T _{Gmax} | 68°C | 51°C |

T_g measured by DSC, 10°C/min, inflexion point

MECHANICAL CHARACTERISTICS

| Systems | 1010/1014 or 1010/1016 |
|---|---|
| Abrasion [Wheel CS17 - 1000 cycles] | loss inferior to 100 mg for 1 kg sample |
| Mandrel resistance to flexion [32mm diameter] | No defect of the film on a folded plate |

CHEMICAL RESISTANCES

| Systems | 1010/1014 or 1010/1016 |
|---------------------|------------------------|
| Toluene | 3 to 7 days |
| Bleach [10 volumes] | 7 to 28 days |
| Ethanol | >28 days |
| Nitric Acid [10%] | >28 days |
| Lactic acid | >28 days |
| Deionised water | >28 days |

PACKAGING

1010/1014 :

- Plastic bottles kit of 500g
- Plastic jerrycans kit of 1, 2, 5, and 16kg
- Plastic drums kit of 60kg
- Drums kit of 400kg
- IBCs kit of 1600kg

1010/1016 :

- Plastic bottles kit of 625g
- Plastic jerrycans kit of 2,5, 5, 12,5 and 40kg
- Drums kit of 333kg

TRANSPORT & STORAGE

Keep containers sealed and away from heat and cold preferably between 10°C and 30°C in a well ventilated area. Our products are guaranteed in their original packaging (check expiry date on the label).

HEALTH & SAFETY

Skin contact must be avoided by wearing protective nitrile gloves & overalls or other protective clothing.

Eye protection should be worn to avoid risk of resin, hardener, solvent or dust entering the eyes. If this occurs flush the eye with water for 15 minutes, holding the eyelid open, and seek medical attention.

Ensure adequate ventilation in work areas. Respiratory protection should be worn with ABEKP coded filters.

Resoltech issues full Material Safety Data Sheet for all hazardous products. Please ensure that you have the correct MSDS to hand for the materials you are using before commencing work.

! 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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