

RESOLCOAT 1010

Technical data sheet 12/05/011

See TechNotes N°3 et N°5

Hardeners 1014 & 1016

Water based Epoxy Resin

- **Mat or High gloss primer & varnish**
- **1 / 1 Easy mixing ratio in Volume**
- **Uses water to clean brushes and rollers**
- **Extreme low viscosity will prime any porous material in depth**
- **May be applied on humid substracts.**



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 substracts, 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 can result 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.

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.

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Resin 1010

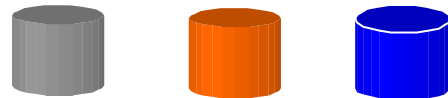
Hardeners 1014 & 1016

Water based epoxy resin

MIXING RATIO

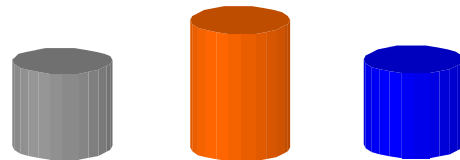
High gloss finish

Resin 1010	Hardener 1014	Thinner water
1	1	0 to 2 (1 recommended)



Mat finish

Resin 1010	Hardener 1016	Thinner water
2	3	0 to 2



Mixing ratio must be accurately followed. It is recommended to add the water to the mixed resin+hardener. Mix thoroughly before applying.

APPLICATION

RESOLCOAT 1010 is formulated to prime, protect and enhance surfaces.

On woods, the system can be used as a sealer (2 coats over plywood sheets prior to using them in boat construction), as varnish (marine and floors), or as structural reinforcement for damaged timber.

- The surface should be clean of dust and degreased prior to applying the coating.
- The system can be applied by brush or roller.
- A fresh coat of Resolcoat 1010 is visible, due to its milky aspect. This colour disappears when curing as the water is expelled from the film the same way a solvent works.
- At least 2 coats should be applied as a single coat may stay slightly micro porous (letting steam through but not water).
- Sanding is not necessary between coats as long as recoating occurs within one week.
- The system can be used with or without adding water. Adding water will make it even thinner and ensure a deep penetration of the substrate. The water acts as a thinner and evaporates.
- When using a large batch, we advise stirring the mixture from time to time in the pot. Pot life is 1h, do not mix more than what can be applied in 1h (ex: 50 sqm/ man/hour with roller).
- To repair damaged or rotten timber, dilute with 1 volume of water to reduce viscosity.
- Tools cleaning with water.

Resolcoat is a choice product for priming concrete floors before pouring new concrete or painting it with any type of paint (epoxy, PU or acrylic). It will block humidity and enable a perfect bond between coats.

For mortar applications, start the mixing of charges with 10kg of substrates for 1 to 2 kg of 1010/1014. Add water.

Primer application: 1010: 1 vol. + 1014 1 vol + water 1 vol.

High gloss varnish application: 1010: 1 vol. + 1014 1 vol + water 1 vol.

Mat varnish application: 1010: 2 vol. + 1016 3 vol + water 2vol.

Always apply a first coat of 1010/1014 on porous substrates before applying the mat finish.

Resin 1010

Hardeners 1014 & 1016

APPLICATION (continued)

Primers

For priming applications, we recommend the following mixing ratio:

1010 : 1 vol. + **1014** : 1 vol. + **WATER** : 1 to 3 vol.

It is advised not to use the 1016 hardener for priming applications.

Varnish and topcoats

For high gloss applications we recommend the following mixing ratio:

1010 : 1 vol. + **1014** : 1 vol. + **WATER** : 1 vol.

For mat finish applications we recommend the following mixing ratio:

■ **1010** : 2 vol. + **1016** : 3 vol. + **WATER** : 2 vol.

Mortars and Self-Levelling compounds

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

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.

RESOLCOAT 1010 cannot be used for laminating fibreglass since it is water based and water affects negatively the finish treatments of woven fibreglass fabrics.

Resolcoat 1010 can be used on any natural fibres such as hemp, flax, cellulose, coconut, cork...etc.

Resolcoat 1010 can be used as adhesive for veneers. For industrial applications it is possible to heat the resulting bond in order to accelerate the curing process.

Resolcoat 1010 should not be used on surfaces exposed to intense direct UV exposure.

Resolcoat 1010 is sensitive to cold temperatures and should be stored above 10°C. After prolonged storage at low temperature, crystallisation of resin may occur. This is easily removed by warming up for a sufficient time to 40-50°C. The quality of the product will not be affected by this process.

Unlike other epoxy resin where the pot-life is defined by the gel time, Resolcoat 1010/1014/1016 will not gel in the mixing container when thinned with water, but the water may not evaporate as well once applied after one hour in the mixing container. It is therefore recommended to mix only what can be applied in 1 hour.

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

Resin 1010

Hardeners 1014 & 1016

PHYSICAL CHARACTERISTICS @ 23°C

Visual aspect

1010 :	White liquid
1014 :	Yellowish viscous liquid
1016 :	Yellowish viscous liquid

Density

1010 :	1,1
1014, 1016 :	1,1
Mix :	1,1

Drying & Hardening schedules

Drying in film

Touch dry @ 25°C:	15 min
Overcoat @ 25°C :	5 h

Hardening

Pot life @ 25°C on100g :	1 h
Complete Reticulation @ 25°C :	24 h to 48h

MECHANICAL CHARACTERISTICS

Abrasion

Wheel CS17 - 1000 cycles :	loss inferior to 100 mg for 1 kg sample
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Flexion

Mandrel resistance to flexion :	No defect of the film on a folded plate on 32mm diameter tube
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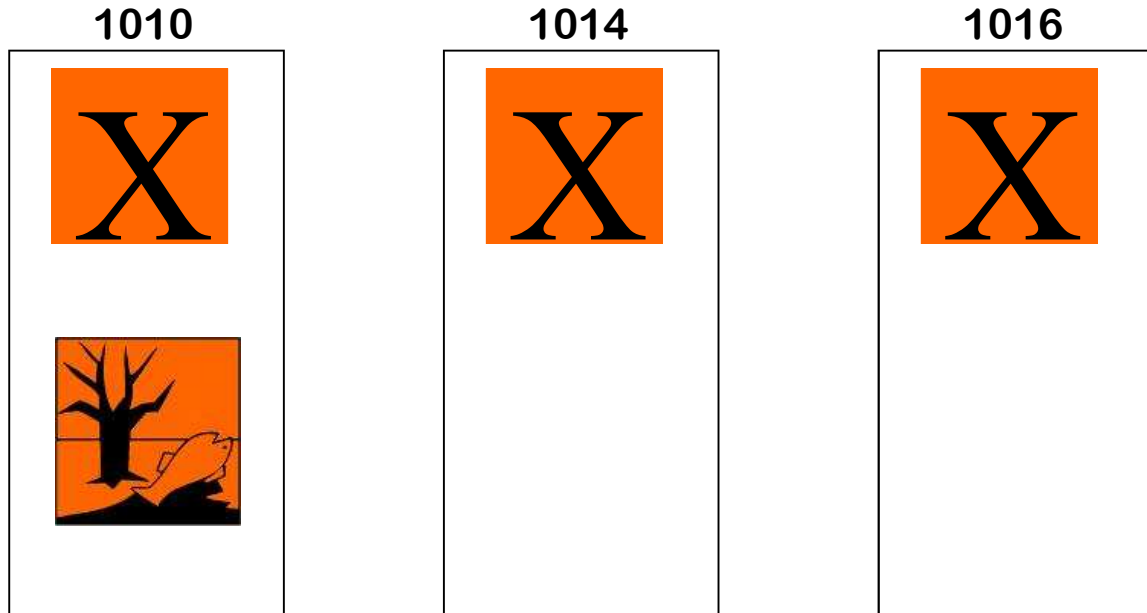
Chemical resistances

Toluene :	3 to 7 days
Bleach 10vol :	7 to 28 days
Ethanol :	28 to .. days
Nitric Acid 10% :	28 to ... days
Lactic acid :	28 to ... days
Deionised water :	28 to .. days

Resin 1010

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Labelling



Non classified as dangerous according to ONU, OMI, ADR/RID and IATA/OACI.

PACKAGING

1010 / 1014

Kit in plastic container of 500g

Kit in plastic container of 2, 4, 10, 20, 60 kg

Kit in metal drums of 400 kg

1010 / 1016

Kit in plastic container of 625g

Kit in plastic container of 2.5, 5, 12.5, 40 kg

Kit in metal drums of 333 kg

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.

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.

Resolcoat 1010 system has a very low toxicity for the users, hardeners 1014 and 1016 are not even UN classed

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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