

RESOLTECH 1600

09/09/2011

Hardener 1606

Flexible Epoxy System

- Flexible laminating system
- Room temperature curing
- High impact resistance



The 1600 1606 system results of the latest advances in epoxy chemistry formulation and enables to obtain a **flexible epoxy without plasticizers**, retaining all the added values of epoxy resins: high adhesion, high toughness, but none of the aging issues that plasticizers created in the older flexible formulations. The latest system is a high performance **epoxy laminating system** that cures at room temperature. It is formulated for the realisation of flexible laminates that need a high flexibility and good chemical resistance.

Its main characteristics are:

- Highly flexible
- Good resilience.
- Excellent adhesion on all substrates.
- Very good resistance to detergents, solvents, Oil derivatives, alkaline solutions and diluted acids.

So far, the application where it has been used are:

- Flexible carbon rods
- Flexible light RTM counter moulds when mixed with the 1050 resin
- Decoration & upholstery items
- Rally car parts (bumpers)
- Embedding of sensors .
- Fibre reinforced membranes

RESIN 1600

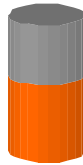
HARDENER 1606

MIXING RATIO

1600
1606

By weight

100
126



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 mechanically stirred during no less than 5 minutes to ensure full homogeneity.

Keeping the mixture in flat open containers reduces the risks of exothermic reaction.

APPLICATION

The standard procedure of working with epoxy systems applies to the RESOLTECH RE/1606. Mixing the resin and hardener should be done above 5 °C. It is recommended to proceed to a small test before industrial size application. It is required to deglaze, clean and degrease the support prior to casting.

Physical Properties @ 25°C

Resin 1600

- | | |
|-------------|-----------------------------|
| ■ Nature | Modified Epoxy resin |
| ■ Aspect | Transparent to light yellow |
| ■ Viscosity | 406 mPa.s |
| ■ Density | 1,08 |

Hardener 1606

- | | |
|-------------|---------------------------|
| ■ Nature | Aliphatic modified amines |
| ■ Aspect | Yellow liquid |
| ■ Viscosity | 1400 mPa.s |
| ■ Density | 1,02 |

Resin/hardener mixed

- | | |
|----------------------------------|-----------------------------|
| ■ Aspect | Transparent to light yellow |
| ■ Viscosity | 878 mPa.s |
| ■ Density | 1,05 |
| ■ Gel time on 70 ml g at 25°C | 60 minutes |
| ■ Gelttime on 3 mm film @ 25°C : | 3 h |

RESIN 1600

HARDENER 1606

MECHANICAL & THERMAL PROPERTIES

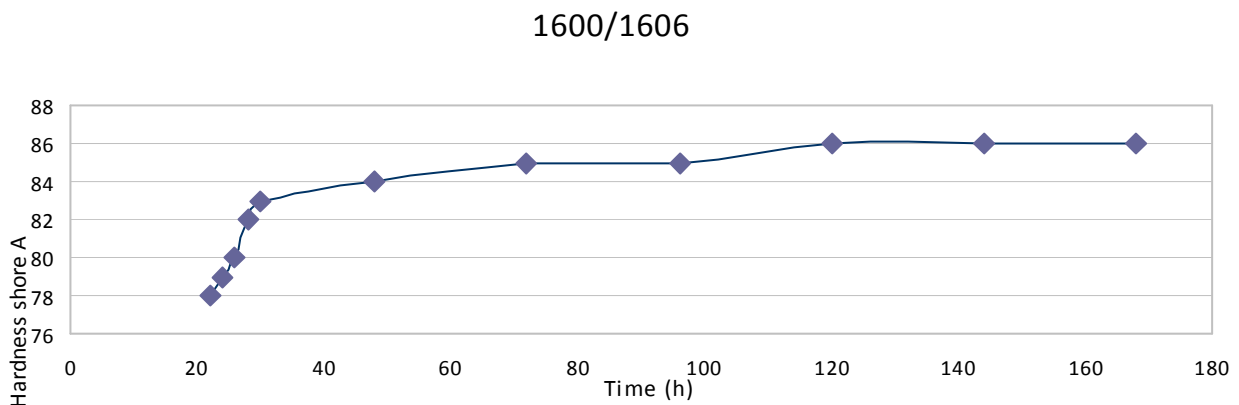
Traction Modulus:	160 MPa
Elongation at break:	55% +/- 3 % after 24 hours (ASTM D638M-96)
Max Stength:	9 MPa
Hardness A / D (25°C-7j) :	60D / 86A (ASTM D2240)

TG: < 0°C

The vitreous temperature of the 1600/1606 system is inferior to 0 °C as this system is an elastomer based epoxy. The 1600/1600 system will remain flexible in negative temperature conditions

The maximum service temperature is yet to be defined.

Hardness (Shore A) evolution on 7 days:



CHEMICAL RESISTANCE PROPERTIES

- Mineral, Vegetal, Animal and Organic oils.
- Detergents and cleaning products.
- Alcohols: Benzyl, Ethyl, isopropyl, butylic, methyl, furfural
- Solvents and Oil based products: acetone, methylethylketone, xylene, trichloroethylene, Unleaded gas, Diesel, Kerosene
- Saline and alkaline solutions
- Diluted acids

Resin 1600

Hardener 1606

LABELLING

1600



Irritant



Dangerous
for the
environment

1606



Corrosive



Dangerous
for the
environment

PACKAGING

- Plastic jerrycan kit of 1 kg + 1,26kg.
- Plastic jerrycan kit of 4 kg + 5kg.
- Plastic jerrycan kit of 20 kg + 25 kg.
- Steel drums kit of 152 kg + 190 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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