

RESOLCOAT 7080 HC GRIS

Hardener 7086 HC

Epoxy Gelcoat for fuel tanks

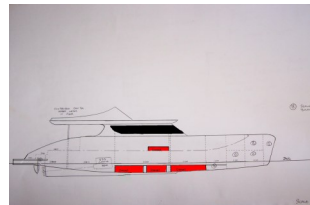
New formula

- Easier application
- Improved shiny & glossy film
- Improved anti-sagging properties
- Lower density
- Improved coating impermeability

For proper use of the various versions in your possession, mixing ratios indicated on resin & hardener must match.

New version, mixing ratio by weight : **Resin 100 + Hardener 40**

Previous version, mixing ratio by weight : **Resin 100 + Hardener 30**



RESOLCOAT 7080 HC GRIS / 7086 HC epoxy gelcoat is specially formulated for the production of structural composite parts exposed to fuel and other oil derivatives such as offshore oil drilling equipments, fuel tanks...

This new generation system, optimized with **excellent self levelling characteristics and excellent air release**, is suitable for the manufacture of large composite parts.

It can be applied by brush or roller while guaranteeing low toxicity working conditions to the users. The recommended application thickness is around 600µm which is possible to achieve in one coat on a vertical surface without sag. **Laminates can be released from the moulds after room temperature curing.** Optimal thermomechanical & chemical properties will be obtained after a post curing cycle defined later in this technical data sheet.

7080 HCF GRIS / 7086 HCF is a lower viscosity system to be used when access in the tank is not possible. It enables coating/sealing/relining by rolling the tank once this system has been poured inside.

Epoxy Gelcoat for fuel tanks

MIXING RATIO

Systems	7080 HC GRIS / 7086 HC	7080 HCF GRIS / 7086 HCF
Mixing ratio by weight	100 / 40	100 / 34

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 preferable to only mix the necessary amount usable within the given potlife. Keeping the mixture in flat open containers reduces the risks of exothermic reaction.

APPLICATION

7080 HC GRIS / 7086 HC can be applied by brush or roller.

The average consumption is 0.7kg/m² for a 600µm dry film.

As an indication, it is possible to overcoat the gelcoat with a laminating resin as long as the gelcoat's surface still has tack (timing to be defined by workshop temperature).

It is recommended to sand and degrease before laminating onto the gelcoat if the surface has cured and formed its film (tack-free surface).

Other application method such as using chopped fiber to ensure mechanical adhesion or delaying the gel by applying thin layers of gelcoat with a short open time between layer may be applied. In all cases testing in production conditions should be conducted in order to validate the method before industrial size applications.

It is recommended to have workshop temperature conditions between **18-25°C** in order to facilitate the mixing and the application, even though this system has very little sensitivity to humidity. A lower temperature will increase the viscosity of the mix as well as its pot life. On the contrary, a higher temperature will reduce the viscosity and the pot life of the mix.

PHYSICAL CHARACTERISTICS

Visual aspect

7080 HC GRIS : Grey liquid
7086 HC : Translucent slightly yellow gel
Mix : Grey thixotropic liquid

Densities according to ISO 1675 (±0.05)

References	7080 HC GRIS	7086 HC
Density at 23°C	1.20	1.01
Mixed density at 23°C	1.15	

Gelcoat 7080 HC GRIS

Hardener 7086 HC

Technical Datasheet - v3 - 26.01.2016
Previous version - 28.01.2009

REACTIVITY

System	7080 HC GRIS / 7086 HC
Reactivity on 70mL (~4cm thickness) at 23°C	35min
Temperature at exothermic peak on 70mL at 23°C	179°C
Time at exothermic peak on 70mL at 23°C	39min
Gel time on 2mm film at 23°C	1h37min

Reactivity measurements made with Trombotech®

CURING & POST CURING

This epoxy gelcoat will cure at room temperature enabling to release parts from the moulds after 24h. A further post-curing of 16 hours at 60 °C will enable the gelcoat to obtain its maximal thermomechanical & chemical properties.

Tack time : 2h at 23°C

Touch dry : 4h at 23°C

Hard & sandable : 12h at 23°C

Releasable : 24h at 23°C

Optimal chemical resistance : 7 days at 23°C or 16 hours at 60°C

MECHANICAL PROPERTIES

System	7080 HC GRIS / 7086 HC	
Curing cycle	14 days at 23°C	16 hours at 60°C
Shore D Hardness according to ISO 868	87	88
T _G measured with Kinetech®	55°C	76°C

CHEMICAL RESISTANCE

7080 HC GRIS / 7086 HC	Diesel	Unleaded 98	Unleaded 95 E10
Chemical resistance	+++	+++	++

Tests realized on gelcoat samples cured : 24h at 23°C +16h at 60°C & immersed during one year at 23°C.

+++ : Excellent

++ : Good

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Hardener 7086 HC

PACKAGING

Available kits of **7080 HC GRIS / 7086 HC** :

- 1.4kg : (1+0.4)kg
- 7kg : (5+2)kg
- 35kg : (25+10)kg

Fluid version **7080 HCF GRIS / 7086 HCF** :

- 1.18kg : (0.88+0.3)kg
- 5.9kg : (4.4+1.5)kg
- 29.5kg : (22+7.5)kg

Possibility of ordering **7080 HC NEUTRE + EPOXY PIGMENT PASTE** (according to RAL colour range). Consult us to know available packaging.

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 stated on the label).

HEALTH & SAFETY

It is advised to follow basic rules such as avoiding skin contact, wear masks & gloves. Please read our Material Safety Datasheet for more information. In case of eye contamination, wash with water and seek medical advice.

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.