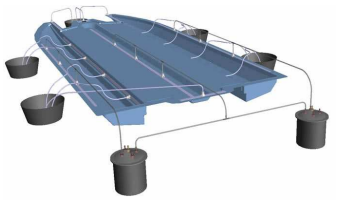
RESOLCOAT 7080 HC

Hardener 7086 HC

Epoxy Gelcoat for Fuel Tanks

- **High chemical resistance to fuel and hydrocarbons.**
- **High modulus & mechanical properties**
- **TG > 90°C**



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

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 roller or airless while guaranteeing low toxicity working conditions to the users.

The recommended application thickness ranges from 500 µm to 900 µm @ 25°C, which it is possible to achieve in one coat on a vertical surface without sag.

Laminates can be released from the moulds after room temperature curing. The minimum time before demoulding will depend on the cure schedule of the associated laminate.

Final thermo-mechanical properties will be obtained after a post curing cycle defined according later in this technical data sheet.

Gelcoat 7080HC

Hardener 7086 HC

High Chemical Resistance Epoxy Gelcoat

MIXING RATIO

Resin 7080 HC	**100 pbw**
Hardener 7086 HC	**30 pbw**

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

APPLICATION

The standard procedure of working with epoxy gelcoats applies this system. The 7080 HC system can be applied by brush, roller, or airless gelcoater.
7080HC has been formulated for application from 500 to to 1100 µm without sag on vertical surfaces in one only coat.
Coverage: 0,6 kg/sqm for a 500 µm thickness dry film to 1,1 kg/m2 to obtain a 900 µm film.
Overcoating:
As an indication, it is possible to overcoat the gelcoat with a laminating resin within the hour of it´s application as long as the 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 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

7080HC : Grey gel
7086HC : Transparent yellow liquid.
Mix : Grey gel .

Density

REFERENCES	7080 HC	7086 HC	Mix
DENSITY	1.3	0,98	1,23

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REACTIVITY @ 23°C

Reactivity measures on Trombotech®

Gel time on 100g	60 min
Temperature at exothermic peak on 100g	ND
Touch Dry on 1 mm layer	4h

CURE & POST CURING

The 7080HC system will cure at room temperature enabling to release parts from the moulds at room temperature after 24h.
A further post-cure of 15h at 60 °C will enable the gelcoat to obtain 100% of it´s mechanical characteristics.

Touch dry on 900 µm :	4 Hours @ 25 ºC
Hard & sandable :	12 Hours @ 25 ºC
Releasable from mould:	24h at room temperature
Full cure :	7 days at room temperature or 15 Hours @ 60°C

MECHANICAL CHARACTERISTICS

Hardness:	85 Shore D
Tensile Strength :	N/A
Flexural Strength :	N/A
Elongation to break :	5%
TG after 24h @ room temperature :	**54ºC**
TG after postcure of 15 Hours @ 60°C :	**92°C**

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LABELLING

7080HC

Irritant

Harmful for the Environment

7086HC

PACKAGING

- 1,3 kg kit: 1 kg of 7080HC + 0.30 kg. of 7086HC
- 7 kg kit: 5 kg of 7080HC + 1,5 kg. of 7086HC
- 32 kg kit: 25 kg of 7080HC + 7,5 kg. of 7086HC

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..

rēsoltech
ADVANCED TECHNOLOGY RESINS

35, impasse Emeri • Pôle d'activités
13510 EGUILLES • FRANCE
Tél : +33 4 42 95 01 95 • Fax : +33 4 42 95 01 98
e-mail : export@resoltech.com • website : www.resoltech.com