rēsoltech
ADVANCED TECHNOLOGY RESINS

Resin 2010 FGCS

Hardener 2014 FGCT

Self extinguishing epoxy gelcoat

- **Self-extinguishing epoxy that complies with marine, aerospace & building industry standards.**
- **High quality finish**
- **Very high UV resistance**




RESOLTECH 2010FGCS-2014 FGCT is a self-extinguishing epoxy gelcoat that complies with the OMI-SOLAS 2000 directive, FAR 25 853 and M2 classifications

Thanks to its application characteristics, it is suitable for the application of both simple and complex shapes.
The proportions of the 2014 FGC hardener system are 19.5 parts for each 100 parts of resin weight.

Usable working time is 45 minutes and it gives a temperature of vitreous transition of up to 75ºC.
Once hardened, the parts can be released from the mould without post-curing.

The optimal thermo mechanical properties are obtained after an adapted cycle of curing. However, post curing is NOT essential depending on the final use of the parts.

The gelcoat 2010 FGCS is available in white as standard or in neutral with all RAL color with pigments.

The 2010FGCS offers a good UV resistance for an epoxy gelcoat.

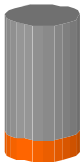
Resin 2010 FGCS

Hardener 2014 FGCT

Self-Extinguishing Epoxy Gelcoat

MIXING RATIO

	By weight
Resin 2010 FGCS Blanc	100
Hardener 2014 FGCT	19,5



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.

APPLICATION

The standard procedure of working with epoxy gelcoats applies this system. The 2010 FGCS system is best applied by brush, but may also be applied with airless gelcoaters designed for thick products application.
The 2010 FGCS has been formulated for application from 500 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.

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.

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 is still tacky - tacky meaning not only that the product is still soft but that its surface has not formed its film, staining when touched (timing to be defined by test at workshop temperature).

Other application methods may ensure a good bond between the tacky gelcoat and the lamination resin such as: sprinkling the tacky gelcoat with chopped fiber or 50 µm aluminum powder, delaying the gel by applying thin layers of gelcoat with a short open time between layer, or applying a coat of extra slow lamination resin to ensure the gelcoat surface stays tacky.
In all cases testing in production conditions should be conducted in order to validate the method before industrial size applications.

It is recommended to sand/deglaze and degrease before laminating onto the gelcoat if the surface has cured and formed its film (tack-free surface). Do not laminate on a hard and glossy gelcoat—it would result in a poor bonding between the cured gelcoat and the lamination resin.

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

Resin 2010 FGCS

Hardener 2014 FGCT

PHYSICAL CHARACTERISTICS @ 23°C

Visual Aspect

2010 FGCS : Light coloured gel
2014 FGCT : Colourless clear liquid with yellow tints
Mix : white gel

Density

REFERENCES	2010 FGCS Blanc	2014 FGCT	Mix
Density	1.50	0.98	1.45

Viscosity

Viscosity is measured using Brookfield

REFERENCES	2010FGCS	2014 FGCT	Mix
Viscosity (mPa.s)	~28500	~65	~3000

REACTIVITY@ 23°C

Curing @ 23ºC **2010 FGCS - 2014 FGC**	2010 FGCS-2014 FGCT
Pot life (70 grs)	45 min

CURING & POST-CURING

While a post-cure is not mandatory, In order to obtain a material with maximum mechanical properties and **a TG of 75°C**, it is necessary to post-cure with a cycle of : **24h at 20°C + 15h at 60°C**

MECHANICAL CHARACTERISTICS

Flexion

% Elongation to break: 10 %

Hardness

Shore A DIN 53505/ISO 868/ASTM D 2240 99 shore A

Resin 2010 FGCS

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FIRE &SMOKE CHARACTERISTICS

HOMOLOGATIONS

MARINE

• Complies with resolutions **MSC.61 (67), OMI A.653 (16)**, also complies with directive **II-2/3.8, II-2/34 et II/49** of the **SOLAS 2000** convention

AEROSPACE

• Self - Extinguishability complies with **UL94 : V0**
• Self-extinguishing according to **FAR 25.853 horizontal**
• Self-extinguishing according to **FAR 25.853 vertical**
• Fire/smoke complies with the **AIRBUS ABD0031 directive**

CONSTRUCTION / CIVIL ENGINEERING

• Conforms to class **M2** requirements

PACKAGING

Kit in plastic container	1kg + 0.195kg
Kit in plastic container	5kg + 0.975kg
Kit in plastic container	25kg + 4.9kg
Kit in steel drum	200+ 2x19,5 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..

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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