

RESOLTECH 2010

Hardeners 2013 to 2019

Multipurpose Casting Epoxy System

- Adjustable pot life from 10 h to 15 min.
- Room temperature cure & mould release.
- Excellent air release properties.



Thanks to its low viscosity and low exothermy, this system enables casting by gravity or under vacuum, with the incorporation of any kind of charges

All hardeners mix with a 100:35 ratio and can be pre-blended together to precisely adjust the desired pot life.

It is possible to release the parts from the mould without post-curing. 90% of the thermo-mechanical properties of the laminate will be obtained after 7 days at room temperature.

Once cured, casted parts may be released from the moulds without postcure.

The greatest quality of the RESOLTECH 1050 system is its **exceptional wetting properties and air release.**

Resin 2010

Hardeners 2013, 2014, 2015, 2016, 2018, 2019

Epoxy Casting System

MIXING RATIO

	BY WEIGHT	BY VOLUME
Resin 2010	100	7
Hardener 2013~2059	35	3



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 systems applies this system. The 2010 system can be applied casted, infused or injected. In case of casting over a cured surface without peel ply, it is required to deglaze, clean and degrease the support prior to laminating. It is recommended to have workshop temperature conditions between **18-25°C** in order to facilitate the mixing and the incorporation of charges. 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. For more information, please refer to the applications technical bulletins (TechNotes), available on request.

PHYSICAL CHARACTERISTICS

Visual aspect

2010 :	Opalescent neutral liquid
2013 ~ 2019 :	Neutral to transparent yellow liquid.
Mixture aspect :	Neutral to transparent yellow liquid.

Density @ 23°C

	2010	2013	2014	2015	2016	2018	2019
Densité	1.17	0.95	0.97	0.98	0.98	1.00	1.05
Densité du mélange	-	1.10	1.10	1.11	1.11	1.11	1.12

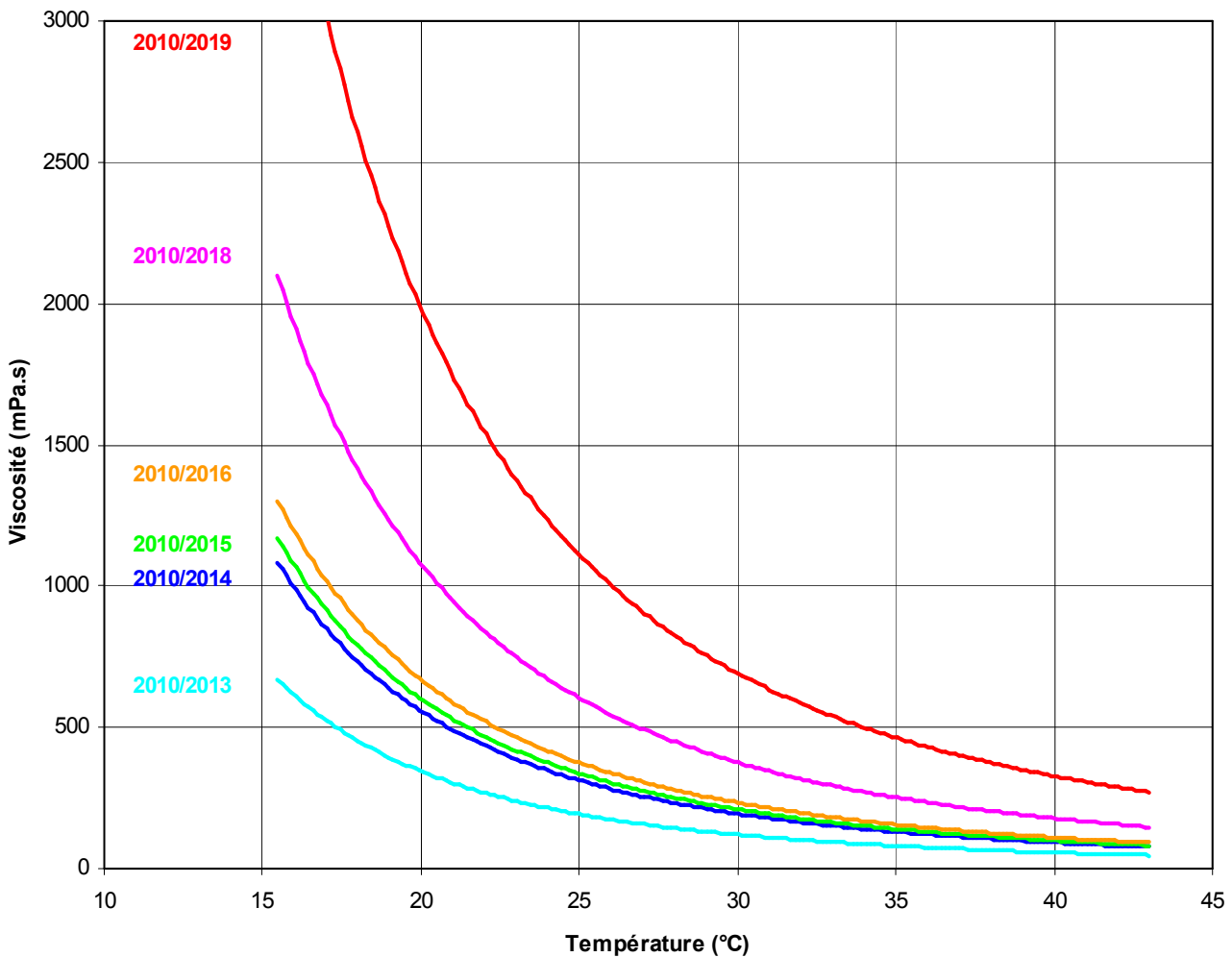
Resin 2010

Hardeners 2013, 2014, 2015, 2016, 2018, 2019

PHYSICAL CHARACTERISTICS (CNTD)

Viscosity (mPa.s)

	2010	2013	2014	2015	2016	2018	2019
Viscosité	1043	29	37	55	59	79	429
Viscosité du mélange	-	205	325	358	392	633	1170



Resin 2010

Hardeners 2013, 2014, 2015, 2016, 2018, 2019

REACTIVITIES

HARDENERS	2013	2014	2015	2016	2018	2019
Pot life on 70g or 2 cm @ 25°C	10h	6h	3h30	1h30	40min	15min

CURING & POST CURING

It is important not to start the curing at temperatures above 50°C without previous advice. High temperature initial curing may create tensions on the laminate and their consequent deformations.

90% of the thermo-mechanical properties are obtained after 7 days at room temperature (25°C).

In order to obtain the maximum-thermo mechanical properties with a TG above 75°C, it is necessary to post cure the laminate according to the following cycle: 24h at room temperature (20-25°C) + 15h at 60°C

For a curing temperature at 25 °C on 100g without post-curing, the following times to demould and to sand may be used as guideline:

2010+2013 : 40h
2010+2014 : 30h
2010+2015 : 20h
2010+2016 : 16h
2010+2018 : 8h
2010+2019 : 3h

The cross-linking reaction (reticulation) of the 2010 system is exothermic, thus it is recommended prior to very large casting to conduct tests or to contact us.

Resin 2010

Hardeners 2013, 2014, 2015, 2016, 2018, 2019

« What are the factors increasing or decreasing the exothermic peak ? »

Temperature at exothermic pic decreases if :	Temperature at exothermic pic increases if:
Volume to be casted is small	Volume to be casted is important
Thickness is small and surface in contact with air is important	Thickness is important and surface exposed to air is small et la surface à l'air est faible
Resin is filled with mineral charge	Resin is un-filled or filled with an insulating charge such as hollow glass microspheres)
Room temperature is low	Room temperature is high
Substrat onto the resin is casted is a good thermal conductor (metal)	Substrat onto the resin is casted is a good thermal insulant (EPS)
Hardener used is on of the slow ones (2013)	Hardener used is on of the fast ones (2019)

CARACTERISTIQUES MECANIKES

TRACTION

Module :	3200 MPa
Max resistance :	65 MPa
Resistance to break :	65 MPa
% Elongation to max effort :	5 %
% Elongation to break:	5 %

FLEXION

Module :	3300 MPa
Résistance :	100 MPa
% allongement à l'effort maxi :	6 %
% allongement à rupture :	6 %

COMPRESSION

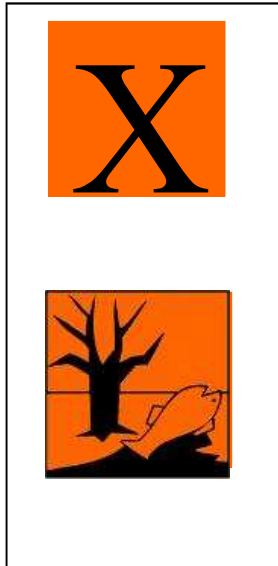
Résistance :	320 MPa
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Resin 2010

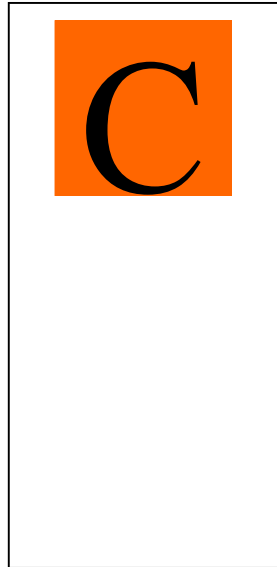
Hardeners 2013, 2014, 2015, 2016, 2018, 2019

LABELLING

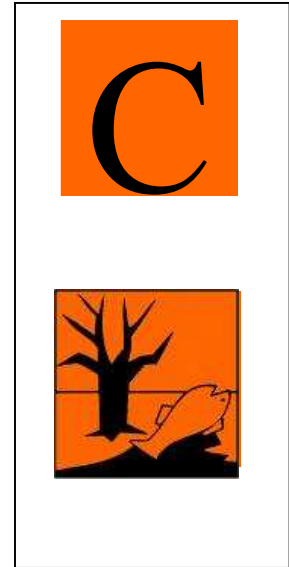
2010



2013



2014 to 2019



PACKAGING

- 1,35 kg kit (1 kg + 0.35 kg)
- 6,75 kg kit (5 kg + 1.75 kg)
- 37,8 kg kit (28 kg + 9.8 kg)
- 270 kg kit (200 kg + 3x23.33 kg)

TRANSPORT & STORAGE

Shelf life is at least 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

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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