SAFEPOXY® GLASS

Glossy and colorless epoxy finishing system

BPA-free
Limited expositions for the users
Bio based

SAFEPOXY® GLASS

- bisphenol A-free
- resin bio based at 34%
- self-levelling, glossy, transparent and colorless
- UV resistant
- high wetting and filling power

Safepoxy® Glass system is intended for the finishing and the glazing of appearance parts. It brings gloss and depth to the surface and it warms tones.

The high wetting power and the air release of the **Safepoxy® Glass** system allow an uniform impregnation of different types of substrates (composite laminates, wood, reinforcements…)

Safepoxy® Glass gets hard and sandable after 16 h at ambient temperature and develops its final hardness after a post-cure.

Applications

Manufacturing of appearance parts, multi-support system.

Application by brush or by a small paint roller on perfectly smooth surface. It is possible to apply several layers after adequate surface preparation (fine grain sanding, dust removal, degreasing).

COP makes the DIFFERENCE

SAFEPOXY® resins have lower toxicity compared to market standards.

They are formulated **without Bisphenol A**, an endocrine disruptor identified as SVHC (Substance of Very High Concern), capable of interfering with our hormones and producing adverse effects even at very low doses.

Beyond being BPA-free and having similar mechanical properties to the marketed epoxy resins, SAFEPOXY® resins are partially bio based.
COP succeeded in substituting BPA for molecules derived from biomass. The renewable carbon source contained in SAFEPOXY® resins comes from the fermentation of sugars and does not represent any health hazard (*INSERM 2016 study*).

Reactivity

Room-temperature reactivity and self-leveling power of the **Safepoxy® Glass** system leads to a very smooth and glossy finished surface.

		SAFEPOXY® GLASS
Mix ratio (in weight)		100 : 40
Mix viscosity at 20°C (mPa.s)	ISO 12058-2	1 130
Gelling time (/70 g) at 20°C	ISO 2535	20 min
Exothermic peak (/70g) (°C)		176
Gelling time (/12 g) à 20°C	ISO 2535	2h15
Sanding time (h)		16

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Cross-linking profile

	Tg (°C)
7 d at 23°C	50
24 h at 23°C + 16 h at 60°C	80

We recommend a 24 h curing cycle at room temperature to allow the material to form a homogeneous network, then 16 h at 60°C in order to tighten the network and to reach the optimum performance of the resin.

Mechanical properties

		STANDARD	SAFEPOXY® GLASS	
			7d at 23°C	16h at 60°C
Flexural tests	Young's modulus	ISO 178	2,92	3,05
	Strength at break		105,45	110,73
	Deformation at break		5,79	4,67
Tensile tests	Young's modulus	ISO 527-4	3,69	3,02
	Strength at break		52,37	58,86
	Deformation at break		2,61	3,55
Final hardness	(Shore D)	ISO 868	85	

Values obtained on standard sample of neat resin (without reinforcement)

Handling and safety

Mix well the resin and hardener before use.

The 100/40 mixing ratio must be strictly respected by weighing the two components. Our kits of 3 different sizes are provided to facilitate the preparation of your application process.

/!\ We warn users on "mass effect" : the exothermic released by epoxy potted systems. We recommend to make preparations in limited quantities in pots of large diameters to allow a better evacuation of calories.

The epoxy hardener part is composed of amines that are irritating in nature. Although we took care to select the least dangerous ones, it is essential when handling to strictly observe the appropriate safety and hygiene measures:

- Good ventilation,
- Wearing gloves and goggles.

For more information, please refer to the safety data sheet.

The resin and hardener must be mixed until a perfectly homogeneous system is obtained. Ensure avoid incorporating too many bubbles in the system during the stirring. The mixture is then poured into a clean pot for use.

Securely close the amine can after use at the risk of strong reactivities and exothermies because of their great hygroscopy.

The system is applied to the support and distributed using a small paint roller or a brush. The ambient temperature should be 20-25°C to ensure a good fluidity of the product, a homogeneous levelling of the surface and a complete reaction of the components. At a higher temperature, the reaction can be catalyzed and have a reduced gel time.

It is possible to clean tools that are soiled with epoxy, even crosslinked, using our bio sourced and unlabeled **GreenCleaner** cleaning solvent. It can be used with a cloth or by dipping.

Storage and packaging

Safepoxy® Glass resin and hardener are guaranteed for 18 months if stored in closed packs at 15-25°C and protected from moisture and light.

SAFEPOXY® GLASS	1,4 KG KIT		3,5 KG KIT		7 KG KIT	
SAFEPOXY GLASS RESIN	1KG	SPG R01	2,5KG	SPG R02	5KG	SPG R03
SAFEPOXY GLASS HARDENER	0,4KG	SPG D01	1KG	SPG D02	2x1KG	SPG D03

Custom codes

SAFEPOXY® GLASS RESIN	29109000
SAFEPOXY® GLASS HARDENER	29215990

The information in this document are provided in good faith and based on our current know-how. It is therefore only indications and not of formal constraints, especially if the product is not used in accordance with the applications contained in this data sheet. A pre-test will therefore always be the basis of relevant conclusions for the user.

The user of this product agrees to comply with the legislation in force regarding the disposal of waste.