

SILICONES and more

Characteristics

- Color indicator
- All round laminating polyester
- Beautiful laminates with glass, carbon or aramide

Polyester Laminating Resin universal Kit - Crystic 2446PALV

- Complete set, including hardener
- Can be used in combination with various glass mats
- Has a good and safe wetting of the fibers
- Resin does not drop out of the fibers
- Air bubbles are easy to remove
- Certified Lloyd's Register

This Polyester Laminating Resin is used, among other things, in combination with CSM glass mat. The Wet-Out is very good. The resin does not sink out of the fiber. Air bubbles are easy to remove. The resin turns from light blue to colorless when you add hardener. This way you cannot be mistaken and accidentally laminate with a non-mixed resin.

It is best to use this resin in the top layers with a [veil](#) or [fiberglass mat](#).

For the deeper layers, you can use the woven fiberglass mats.

We indicate for each glass mat what you approximately need in resin. This is a guideline, but of course it can vary greatly from project to project.

This Polyester is a perfect all round laminating resin and also very suitable for ponds. For swimming pools, however, we recommend a polyester resin that is more resistant to chlorine, such as the Polyester [Laminating Resin Premium](#).

Processing

Polyester cures by adding a peroxide as a hardener. At lower ambient temperatures, more must be used than at higher ambient temperatures. For 100 grams of polyester you can use the below schedule:

At 2-18°C: 2,5 gram hardener on 100 grams polyester

At 18-23°C: 2 gram hardener on 100 grams polyester

At 23-30°C: 1,5 gram hardener on 100 grams polyester

At >30°C: 1 gram hardener on 100 grams polyester

The above depends very much on the amount of polyester to be produced at a time. Larger amounts generate a lot of heat by themselves and can therefore be mixed with less hardener.

If the temperature is too low, curing takes a long time and sometimes it may not even completely finish. If the temperature is too high (also by using too much hardener), there is a high probability of shrinkage and stresses in the cured resin.

Curing of polyester resins works well at room temperature. It is true that the post-baking of the resin at higher temperatures, as indicated by the manufacturer, often gives a stronger end result. However, in many cases this is not possible or very difficult to do.

For very small amounts we advise to use a pipet for the catalyst.

Technical data

Harder %	1%	2%
Pot life in minutes @ 15°C	62	41
Pot life in minutes @ 20°C	39	29
Pot life in minutes @ 25°C	25	20

Use and/or do:



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Resin properties cured at 20°C 24 hours and at 80°C for 3 hours

Mixing ratio (weight)	[A: B]	100: 1-2
Working time at 1% hardener at 20 ° C	[min]	39
Working time at 2% hardener at 20 ° C	[min]	29
Gel time at 1% @ 25 ° C	[min]	25
Demould time @ 20 ° C *	[hour]	More than 2 hours depending o temperature
Color (UV resistant)	[-]	Colorless clear
Viscosity @ 20 ° C	[mPa s]	300
Density after curing	[g / ml]	1.20
Barcol hardness		42
Water absorption for 24 hours at 23 ° C	[mg]	15
Tensile strength	[N / mm ²]	50
Tensile modulus	[N / mm ²]	3800
Elongation at break	[%]	1.5
Deflection temperature under load (1.8 MPa)	[° C]	67
Volumetric shrinkage	[%]	8.3

Resin properties with 4 layers of 450g / m² CSM mats. Cured 24 hours at 20 ° C, 16 hours at 40 ° C

Flexural strength DIN EN 63	[N / mm ²]	190
Flexural modulus DIN 53 457	[N / mm ²]	7400
Tensile strength DIN EN 61	[N / mm ²]	98
Tensile modulus	[N / mm ²]	7600
Elongation at break	[N / mm ²]	1.7

Shelf life

The liquid polyester has a shelf life of at least 3 months when packed in airtight packaging at a temperature of 15 to 25°C and out of direct sunlight.

Safety

Normal chemical safety requirements apply when using polyester resin and peroxide hardeners. Do not drink, eat and smoke during processing. Wash hands after use. Avoid contact with eyes and skin. Do not ingest. Work in a well-ventilated area. If this is not possible, use a mask with an organic vapor filter.

Keep out of reach of children and avoid contact with sparks and open flame.

Always work with the correct safety materials:

liquid-tight gloves, splash goggles and mouth mask with filter. Work even with liquid-tight coverall when working with big amounts of material and always in a ventilated environment.

Use and/or do:

