Characteristics

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

Polyester Laminating Resin Universal

- Only the polyester, hardener not included please buy seperately. E.g: Butanox
- To be used in combination with various glass mats
- For a good and safe wetting of the fibers
- Resin does not drop out of the fibers
- Air bubbles are easy to remove
- Red color indication to indicate that you have added harder

This Polyester Laminating Resin is unsaturated and pre-accelerated. This polyester resin is used in combination with CSM glass mat (chopped strand mat / glass fiber 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 red to amber when you add the 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 well suited 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.

Processing temperaturr °C	% Catalyst for polyester	
12-18°C	2,5	2,5 ml catalyst for 100 gram polyester
18-23°C	2	2 ml catalyst for 100 gram polyester
23-30°C	1,5	1,5 ml catalyst for 100 gram polyester
>30°C	1	1 ml catalyst for 100 gram 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 harder.
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 harder), 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.

Use and/or do:

Technical specifications

Values of liquid product at 23oC

Property	Unit	Value
Viscosity @23°C	[mPa s]	450-550
solid content	[%]	58-62
Gel time 100 gram met 1,5% harder	[min]	20-25
Demould time@ 20°C*	[hours]	More than 2 hours depending on thickness and temperature and amount of catalyst
Mixing ratio	[A component : B component (catalyst)	100:1-2
Kleurindicator		light red to amber coloured

Properties of cured resin baked for 16 hours @80°C and 2 hours @90°C without glasfibre reinforcement

Color (UV-stabilised)	[-]	Amber, clear
Density after cure	[g/ml]	1,10
Tensil strength	[N/mm²]	60
Tensile modulus	[N/mm²]	4050
Elongation at break	[%]	1.8
Flexural strength	[MPa]	70
Flexural modulus	[MPa]	2350

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: