

Low Profile Tooling Resin POLYLITE® 33542-75

Updated February 2016

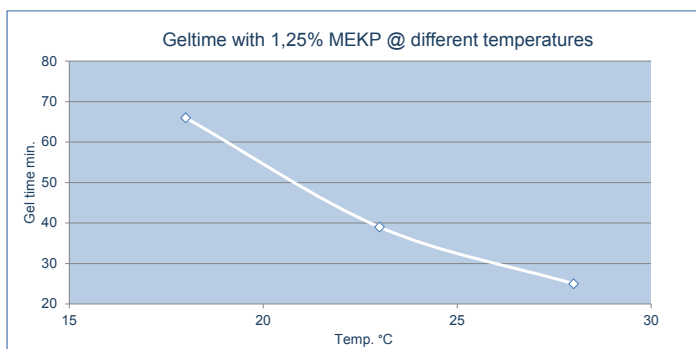
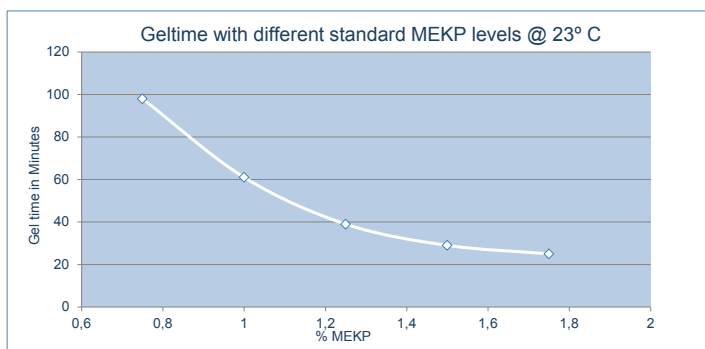
NEW LOW PROFILE TOOLING SYSTEM POLYLITE® 33542-75

DESCRIPTION: POLYLITE® 33542-75 is a pre-promoted, pre-filled, unsaturated polyester laminating resin suitable for the construction of GRP tools.

APPLICATION: POLYLITE® 33542-75 is specifically designed for hand-lay-up and/or spray-up with:

- Good wetting properties
- Easy rolling
- Fast wetting of the glass fibre
- Low density resulting in less resin use and lighter tool constructions
- Less settling
- Easy mixing before use

GELTIME VS. PEROXIDE LEVEL VS. TEMPERATURE



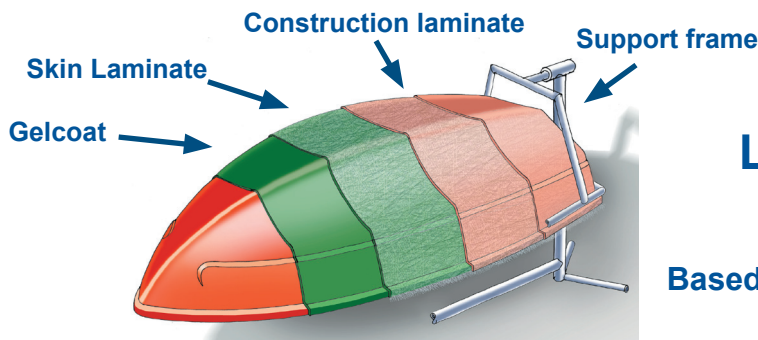
PHYSICAL DATA IN LIQUID STATE AT 23°C

Properties	Unit	Value	Test Method
Viscosity - Brookfield LV SP 3/6 rpm - Cone and Plate	cP cP	4000 – 5000 350 – 450	ASTM D 2196-86 ISO 2884-1999
Flash point	°C	32	ASTM D 3278-95
Density/Specific gravity at 20°C	g/m ³	1.37 ± 0.02	ISO 2811-2001
Styrene content	% weight	27 ± 2.0	B070
Gel time: 200g Sample 1.25% PEROXIDE 1	minutes	35-45	G020
Shelf life, minimum	months	4	G180

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Low Profile Tooling System Step By Step

Based on Gelcoat, Skin and Construction Laminate

STEP 1: TOOLING GELCOAT

NORPOL® GM 90000 H/S or GM 60014 H/S, a **minimum** of 600 microns (0.6mm) cured. The best result is achieved at temperatures between 20-23°C.

STEP 2: SKIN LAMINATE

The same day or within 24 hours apply a minimum of 1 layer 225 g/m² +1 layer 450g/m² or 2 layers of 300 g/m² powder mat (wet on wet) + POLYLITE® 410-900 with 1.5 % NORPOL® PEROXIDE 1. For improved surface use DION® IMPACT 9133-800 with 2% NORPOL® PEROXIDE 1.

STEP 3: CONSTRUCTION LAMINATE

POLYLITE® 33542-75 Hand-lay-up / HLU: Normally next day or within 48 hours apply a **minimum** of 3 layers 450 g/m² powder mat (wet on wet) with 1.25% NORPOL® PEROXIDE 1.

POLYLITE® 33542-75 Spraying / SU: Normally next day or within 48 hours apply a **minimum** of 4 mm laminate thickness with 1.8 % NORPOL® PEROXIDE 1.

- When the laminate is cooled to room temperature repeat Step 3 until the desired laminate thickness is reached
- If a core material is used in the mould it can be laid in wet or glued to the surface with NORPOL®FI-177
- Since POLYLITE® 33542-75 is filled, separation and settling will appear. **Mix well before use**
- When the colour of the laminate changes from a brownish colour into an off-white colour the optimal cure has been reached
- **Maximum** temperature during curing is 70-80°C. The plug has to be made of a material that can withstand this temperature
- Room and resin/reinforcement temperature control is very important when making tools

STEP 4: SUPPORT FRAME

Steel frames can be laminated with POLYLITE® 33542-75 or a standard laminating resin. Under optimal conditions de-moulding can take place after 24 hours.

STEP 5: POST CURE

It will be beneficial for the mould to post cure 2-3 days at 35-40°C while the mould is still on the model. This will improve quality considerably. Check Barcol Hardness before use.

Feel free to contact your local technical Reichhold representative for more advice.

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