



Technical Data Sheet

NM Laminering 275

Utg: 1994-06-30

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General Description

NM Laminering 275 is a solvent-free low-viscosity epoxy resin system for use in laminating, gluing and lacquering.

NM Laminering 275 has good wetting to glass fibre, carbon fibre, and polyester and aramid fibre. It is used for manufacture of moulds and tools, and cold baking of wood. **NM Laminering 275** is suitable as laminating epoxy on polystyrene.

NM Laminering 275 is highly water-resistant and therefore suitable for boat construction and repair of the above mentioned materials.

NM Laminering 275 has a long pot life and low exothermic heat up to layers of 5 mm.

NM Laminering 275 can thixotropated with **NM Filler 51** for use as adhesive. The adhesion is very good for most materials.

Application

The mixture of components is very important. A poor mixing results in soft spots in the cured system. Mix thoroughly in a vessel, transfer the mixture into a clean vessel and mix further. Dosage should always be done on a scale with sufficient accuracy.

Release agents

We recommend film forming release agents such as Marbocote 220.

Wax-based release agents are generally not recommended. For this, trials must be done first.

Curing

NM Laminering 275 cures at room temperature. Time to achieve full cure may be accelerated by post curing at elevated temperature e.g. 24 hours at 50°C.

It is important that the temperature is ramped up slowly to the final cure temperature. Often is it a combination of thickness and the laminate structure that determines the ramping speed. The optimum cure cycle must be defined for each individual case.

Post work

It is important to further treatment as laminating, filling, etc. occurs when the surface is still like a tacky tape. A dry surface has to be sanded to ensure adhesion to the next layer.

Typical Properties

Resin NM Laminering 275 A
Hardener NM Härdare 275 B

Mixing ratio

Resin – Hardener 100 – 55 by weight
Resin – Hardener 100 – 63.25 by volume

Density, 20°C: 1098 kg/m³
Viscosity, 25°C: 0.8 Pa·s
Pot life 100g 20°C: 40 minutes
Open time, 20°C: approx. 80 minutes
Dust dry, 20°C: approx. 3 hours

Compressive strength: 90 MPa
Tensile strength: 30 MPa
E-modulus [Tensile]: 2 GPa
Elongation at break: 2.7 %

Flexural strength: 63 MPa
E-modulus [Flexural]: 2.5 GPa

T_G 1w 20°C: 49°C
T_G 4w 20°C: 49°C
T_G 24h 50°C: 49°C
T_G 24h 80°C: 53°C

Water absorption: 0.24 %

Test on glass laminate, 16 layers 300gr Twill

Flexural strength 390 MPa
E-modulus [Flexural]: 14 GPa
Elongation at break: 4.1%

Lowest curing temperature: +10°C

Colour: Transparent

Normal packing: 0.775 kg
(Standard) 1.4 kg
4.65 kg
7.75 kg
29.0 kg

Cleaning solvent: Acetone

Flexural strength and E-modulus measured according to ISO 178
Tensile strength, E-modulus and Elongation at break measured according to ISO 527
Compressive strength measured according to ISO R604
Water absorption measured according to ISO 62, 24h
T_G measured according with DSC 20K/min

Disclaimer

This product's technical specifications are developed by experience in field and laboratory by us. Fully cured will take place at seven days at +23°C and 50 % RF.

We reserve the right to change products as well as data. Current data sheets are available at our website and with us. We cannot assume responsibility for use in areas that we do not know. The user shall always evaluate products for their intended use and we guarantee only the material properties. For every product we offer reference objects separately.

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