Datablad NM Infusion 664

Utg: 2004-11-22
Ers: 2004-11-22
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Description

NM Infusion 664 is an extremely low viscosity epoxy system, suitable for all kind of infusion processes. The system is based on the latest development within the epoxy technology, which means that the low viscosity can be combined with a high Tg (glass transition temperature) even at room temperature curing. Wetting and adhesive properties are very good to all kind of fibres.

NM Infusion 664 has a low reactivity and the viscosity increases very slowly during the infusion process. Large and complex structures can be infused without problems.
The low reactivity involves a long demoulding time at room temperature curing. Tg should as a minimum reach room temperature before demoulding.
Tg development at +23°C curing temperature can be seen in the table below.

An increase or decrease of the curing temperature with 10°C gives a halvend resp. doubled demoulding time.

Curing can take place at room temperature or as a post-curing at elevated temperature. Curing at +60°C gives a higher Tg.

NM Infusion 664 is not suitable for open mould processes, due to the low viscosity. For such applications, **NM Laminering 650** is recomendable.

NM Infusion 664 has a very low vapour pressure and is practically as good as free from smell. Vacuum gives no outgassing.

Typcial properties

Resin:
NM Infusion 664
Hardener:
NM Härdare 650
Mixing ratio:
Resin-Hardener 100-35 by weight

Viscosity @ 25°C:	275 mPa·s
Potlife 100g 20°C:	>180 minutes
Colour:	Transparent
Normal packing:	1.0+0.35=1.35 kg
	5.0+1.75= 6.75 kg
	20.0+7.0=27.0 kg
Cleaning solvent:	Acetone

Curing time	Flexural str. MPa	E-modulus GPa	Tensile strength MPa	Elongation at break, %
7 days at 23°C	91,5	3.3	69	6,4
16 h at 50°C	116	2.9	70	6
16 h at 60°C	123	2.9	72	6

Flexural strength and E-modulus as ISO 178, tensile strength and elongation at break as ISO 527.

Water absorbtion

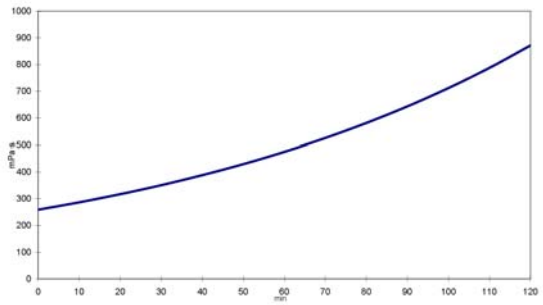
Curing time	24h %	7d %
7 days at 23°C	+0.13	+0.43
16 h at 50°C	+0.09	+0.37
16 h at 60°C	+0.11	+0.40

Tested accourding to ISO 62

Glass Transition Temperature

Curing time	Tg °C	Curing time	Tg °C
16 h at 23°C	3	7 days at 23°C	55
20 h at 23°C	12	7 weeks at 23°C	71
24 h at 23°C	22	16 h at 50°C	71
40 h at 23°C	38	16 h at 60°C	81
12 h at 35°C	53	16 h at 60°C+ 2 h at 100°C	101

Viscosity developement @ 25°C



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