SR 1125 / SD 3303
Fire retardant infusion epoxy system

The **SR 1125 / SD 3303** extinguishing system has been specially formulated for implementation by the infusion technologies. It has many qualities:

- offers a very low viscosity designed for infusion
- no filtration or clogging through fabrics during infusion
- is a fire retardant epoxy system, halogen free and flame retardant.
- has a low smokes opacity and toxicity.
- meets the stringent fire protection standards specified in construction, automotive and transportation parts.
- requires a post curing in the mould before the part's release
- offers an exceptional fire resistance with SC FW16 coating (ASTM E84 class A)

Precaution of use: the rapid decanting of the resin part needs a homogenization of the base before use and a permanent homogenization of the mix during the infusion.

Fire Retardant Epoxy Resin SR 1125

Appearance		Light yellow translucent liquid
Storage stability		2 years @ 20 °C Stir thoroughly just before use
Viscosity (mPa.s)	@ 15 °C @ 20 °C @ 25 °C @ 30 °C @ 40 °C	2 670 1 590 990 650 310
Density	@ 20 °C	1.263 ± 0.001
Refractive Index	@ 25 °C	1.5425 ± 0.0005

Hardener SD 3303

Appearance / colour		Light yellow liquid
Storage stability		1 year @ 20 °C
Viscosity (mPa.s)	@ 15 °C @ 20 °C @ 25 °C @ 30 °C @ 40 °C	20 8 7 6 4
Density	@ 20 °C	0.949 ± 0.001
Refractive Index	@ 25 °C	1.4846 ± 0.0005

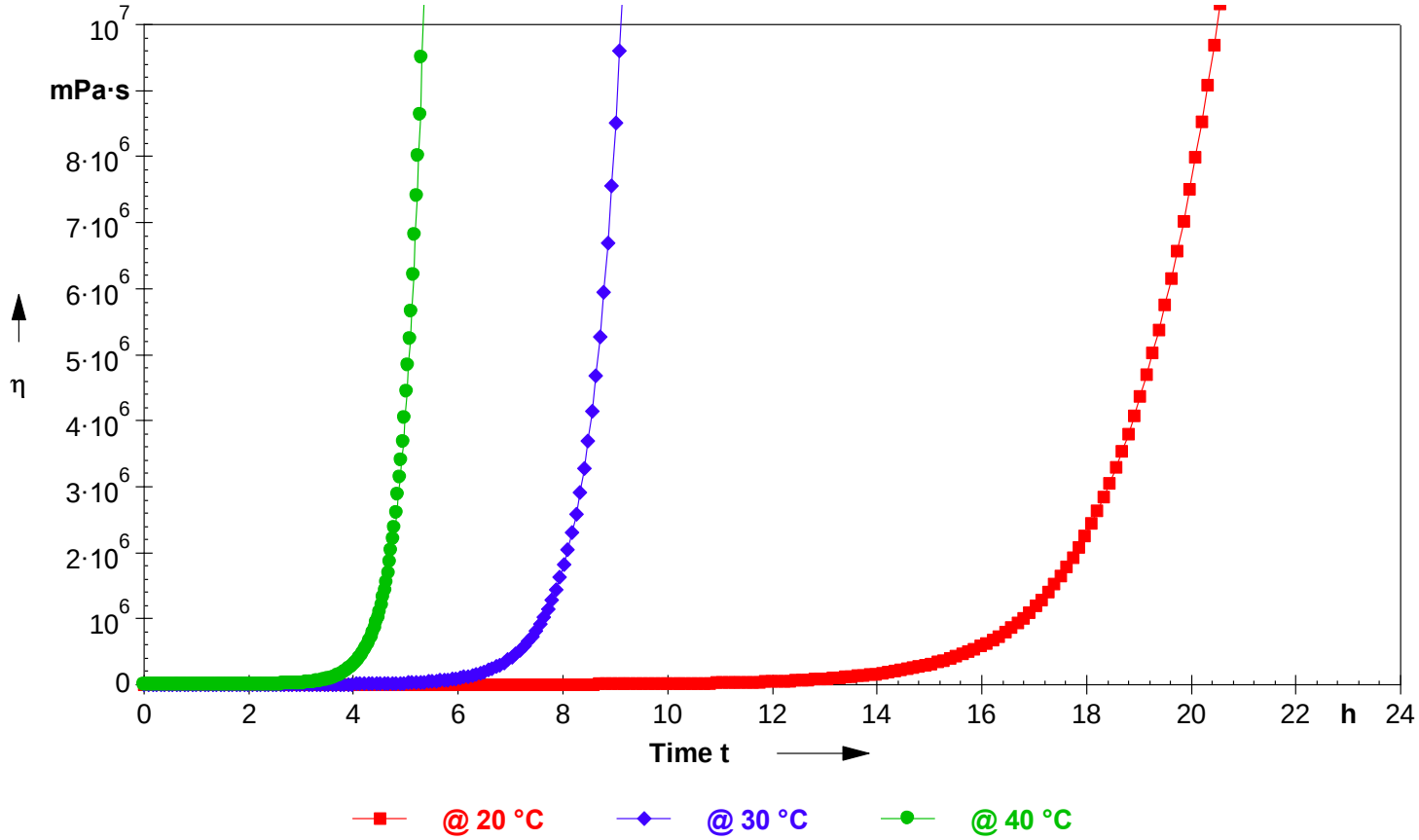
Epoxy Blend SR 1125 / SD 3303

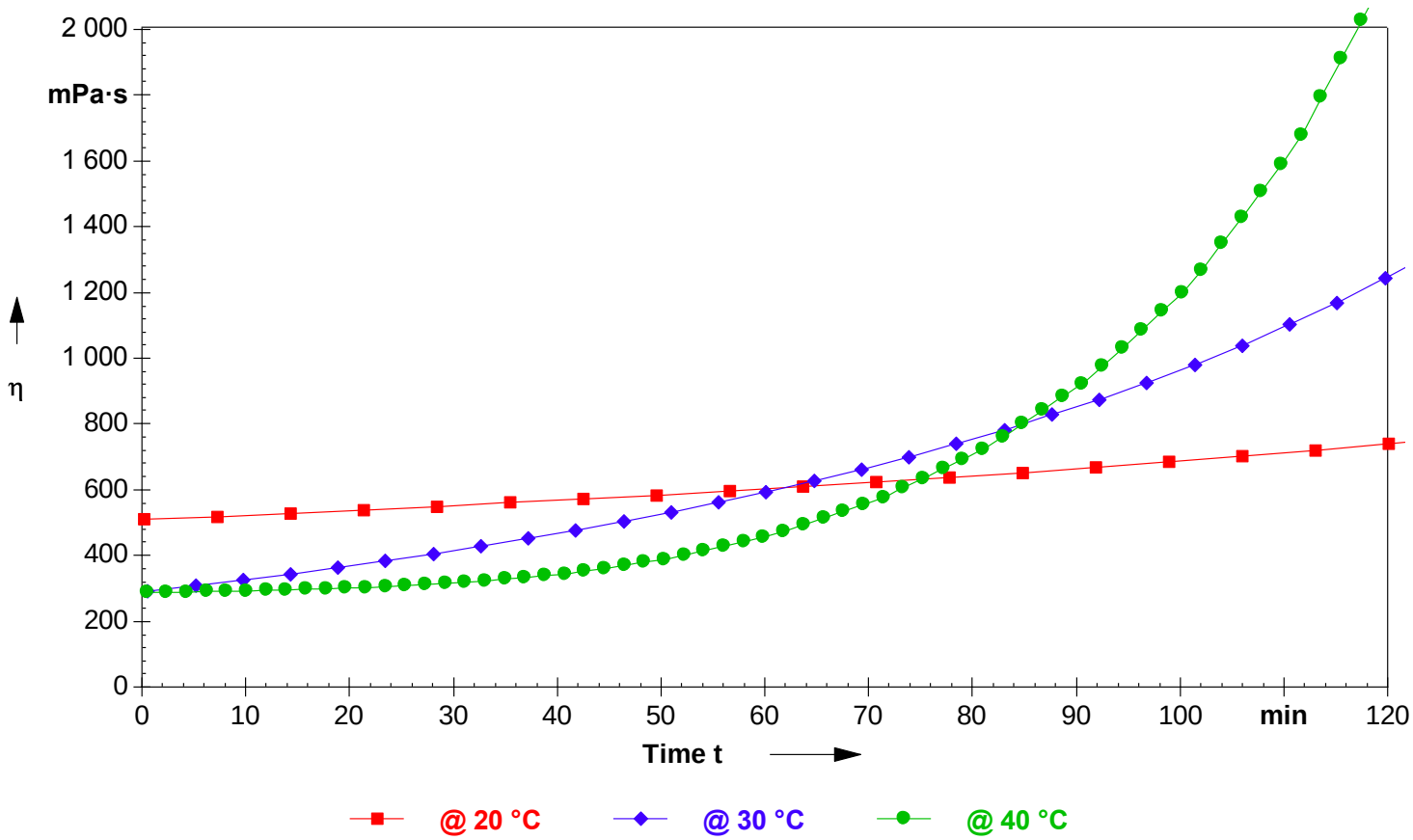
		SR 1125 / SD 3303
Appearance uncured		Light yellow translucent liquid
Mixing ratio by weight Mixing ratio by volume		**100 / 14** **16 / 3**
Viscosity (mPa.s)	@ 20 °C @ 30 °C @ 40 °C	510 290 285
Density after post curing	@ 20 °C	1.420 ± 0.001

Precaution of use: the rapid decanting of the resin part needs a homogenization of the base before use and a permanent homogenization of the mix during the infusion.

Reactivity

Increase of viscosity on a layer of 1 mm thick @ 20, 30 and 40°C





Gel time on a layer of 1 mm thick

Temperature	20 °C	30 °C	40 °C
Gel Time	23 h	11 h	6 h 30 min

Mechanical Properties on Cast Resin

		SR 1125 / SD 3303		
Curing schedule		8 h @ 23 °C + 24 h @ 40 °C	8 h @ 23 °C +16 h @ 60 °C	8 h @ 23 °C + 8 h @ 80 °C
Tensile				
Modulus of elasticity	N/mm^2	4 200	4 200	4 050
Maximum resistance	N/mm^2	57	60	61
Resistance at break	N/mm^2	56	60	61
Elongation at max. load	%	2.0	2.3	2.1
Elongation at break	%	2.0	2.3	2.1
Flexion				
Modulus of elasticity	N/mm^2	3 850	3 600	3 600
Maximum resistance	N/mm^2	87	95	93
Elongation at max. load	%	2.6	3.1	3.0
Elongation at break	%	2.6	3.1	3.0
Compression				
Compressive yield strength	N/mm^2	118	118	116
Offset compressive yield	%	5.8	6.4	6.6
Shear				
Maximum resistance	N/mm^2	44	48	48
Charpy impact strength				
Resilience	kJ/m^2	13	15	13
Glass transition				
Tg_1 / Tg_1 max	°C	72	82	98 / 96

Tests carried out on samples of pure cast resin, without prior degassing, between steel plates.
Measures undertaken according to the following norms:

Tensile:	NF T 51-034
Flexion:	NF T 51-001
Compression:	NF T 51-101
Shear:	ASTM D732-93
Charpy impact strength:	NF T 51-035
DSC glass transition:	ISO 11377-2:1999 -5°C to 180°C under nitrogen gas Tg_1 or Onset: 1st run at 20 °C/min Tg_1 maximum or Onset: 2nd run at 20 °C/min
Viscosity:	Rheometer - CP 50 mm - Shear rate 10 s^{-1}
Density:	Pycnometer (ISO 2811-1)
Gel time:	Crossing of the G'G' curves method