SR Glass Clear

Epoxy System With Optical Highlight (Whitening Effect) For Translucent Laminates

GLASS CLEAR is specially formulated for the manufacturing of wind-surf boards and surf boards.
Glass Clear is suitable for hand lay up of glass, carbon, aramid and polyester fibers.
Glass Clear is compatible with all commercial foams: polystyrenes, polyurethanes, cross-linked and linear PVC foams.
Other applications: Jewellery, detailed work using small amounts, models, pattern coating.

Features :

Most UV resistant
Hardening without tack
High gloss
Low viscosity
Transparency of laminates
Optical Highlight (whitening effect) on white substrate. (Typical Polystyrene, Methacrylate & PU foams)
Self levelling
Sandable
Scratch resistance
Caution: Resin can modified natural substrate due to light diffraction (carbon, wood, linen). Contact your sale representative for more details..

Advice for application

Work in a clean environment with heating facility.
Working temperature : 20°C minimum 35-40°C maximum
Maintain a constant temperature during lamination.
Avoid high ambient humidity. Hygrometry must be lower than 70%.
Avoid exposure to U.V. during the cure: Laminates or coatings having a polymerization of 14 days
at 25 °C, or post cured, will have greater U.V resistance.
Do not wet sand a laminate or coating before 4 days at 25°C or before post curing
Do not dilute with acetone, ester or alcohol based solvents.
Keep packaging well sealed: hardener are sensitive to carbonic gas and humidity.
A polyurethane varnish or SR TOP CLEAR 1056 can be applied without primer after sanding the final layer of resin.

Curing profile

Wait before post-curing : 12 hrs
Minimum cure : 12 hrs @ 40 °C
Optimum cure : 4 hrs @ 40 °C + 6 hrs 60 °C

Resin SR GlassClear

Appearance / Color		Clear liquid
Color Gardner		2 maximum
Viscosity (mPa.s)	@ 15 °C	7 800 ± 1 500
	@ 20 °C	3 700 ± 750
	@ 25 °C	1 900 ± 400
	@ 30 °C	1 100 ± 200
	@ 40 °C	420 ± 100
Density (g/cm^3)	@ 20 °C	1.13 ± 0.01
Refractive index	@ 25°C	1.560 ± 0.002
Shelf life		2 years minimum
Storage		Can cristalize at low temperature and very long storage

Hardener SD GlassClear

Reactivity		Standard
Aspect		Clear liquid
Gardner color		Blue aspect 1 maximum
Viscosity	@ 15 °C	90 ± 20
	@ 20 °C	60 ± 10
	@ 25 °C	45 ± 10
	@ 30 °C	30 ± 10
	@ 40 °C	20 ± 10
Density (g/cm^3)	@ 20 °C	0.95 ± 0.01

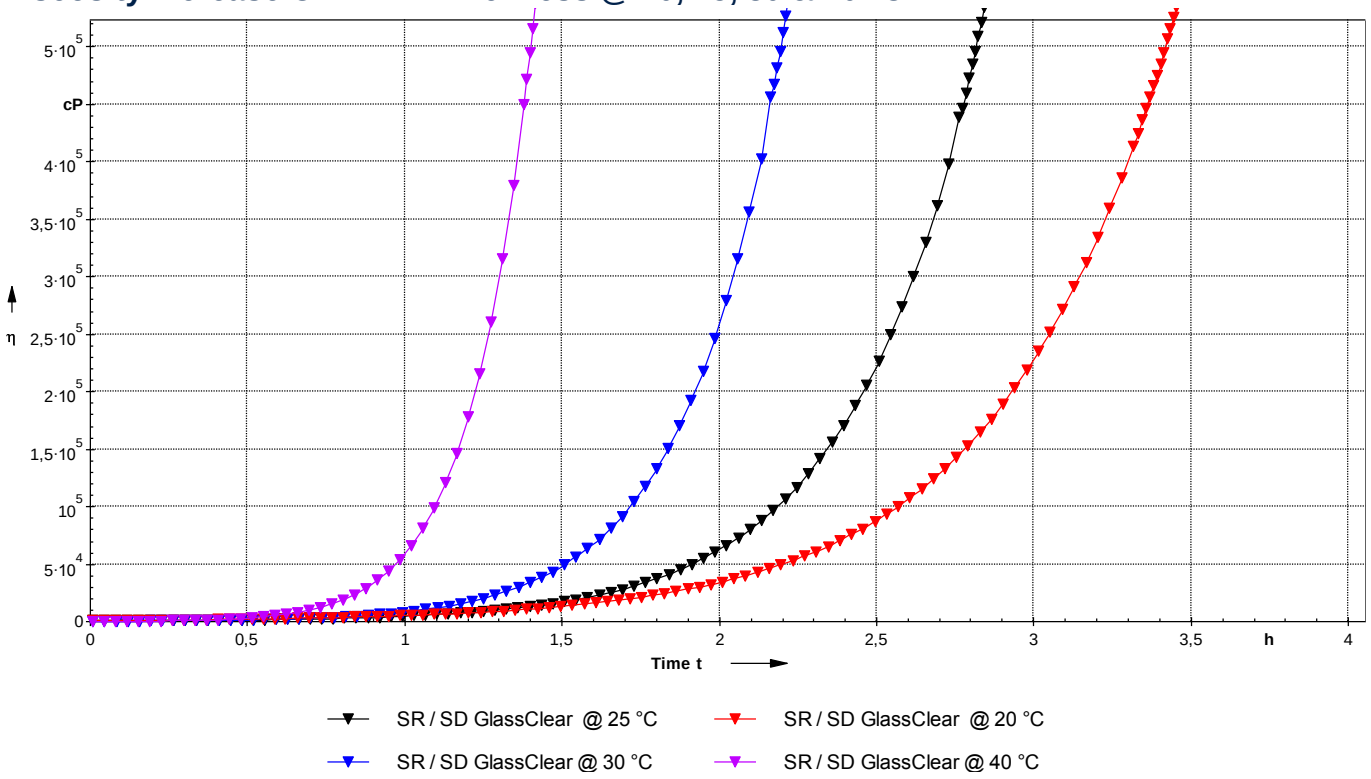
Blend SR / SD Glass Clear

Mixing ratio by weight		100 g / 39 g
Mixing ratio by volume		100 ml / 50 ml Or 2 / 1
Viscosities	@ 20 °C	600 ± 150
	@ 30 °C	430 ± 85
	@ 40 °C	180 ± 35

Tests according to Standards:

Color Gardner :	NF EN ISO 4630	Visual method
Refractive index :	NF ISO 280	
Viscosity :	NF EN ISO 3219	Rheometer 50 mm, shear10s^{-1}
Density:	NF EN ISO 2811-1	Pycnometer

Viscosity Increase On 1 Mm Thickness @ 20, 25, 30 & 40 °C



Mechanical Properties Of Casted Systems

Curing cycle		7 days Ambiant Temperature	24 hrs @ 23 °C + 24 hrs 40 °C	24 hrs @ 23 °C + 16 hrs 60 °C
Tension				
Modulus of elasticity	N/mm^2	2900	2800	2700
Maximum resistance	N/mm^2	61	64	70
Resistance at break	%	61	62	65
Elongation at max. load	%	2.7	3.2	4.5
Elongation at break		2.7	3.2	5.4
Flexion	N/mm^2			
Modulus of elasticity	N/mm^2	3100	3000	2800
Maximum resistance	%	95	107	108
Elongation at max. load	%	3.3	4.9	5.5
		3.3	8.5	8.7
Charpy impact strength				
Resilience	KJ/m^2	18	23	23
Glass transition				
Tg 1 / onset	°C	55	67	77
				78

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

Tension:	NF T 51-034
Flexion :	NF T 51-001
Charpy impact strength:	NF T 51-035
Glass transition DSC :	ISO 11357-2 : 1999 -5°C to 180°C under nitrogen gaz
	Tg1 or Onset : 1st point at 20 °C/mn
	Tg1 maximum or Onset : second run