

SR TopClear 1054 / SD TopClear 1533

Finish coat

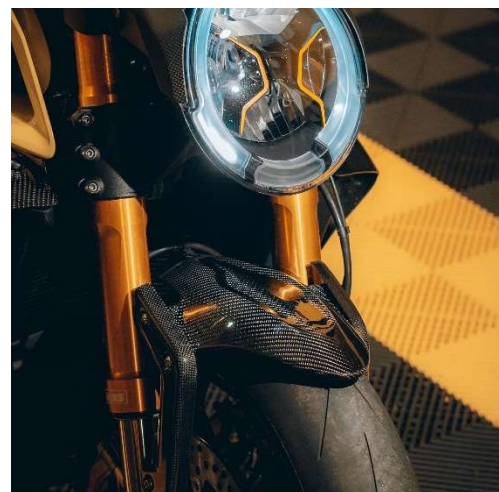
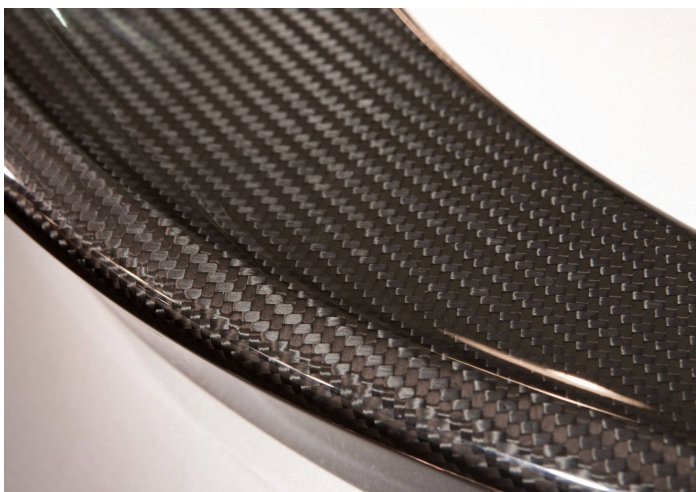
The **TopClear** system is a shiny, translucent or colored, resistant to UV, and 100 % solid product, brushable or sprayable.

Applications

- Finishing for cosmetic parts
- Glass / hot coat
- Varnishing
- Surfacing
- Laminating of small parts (tuning, scenery...)
- Carbon « look »
- Light binding, non structural bonding
- Surf board repairs, fixing fin box
- Clear gel coat

Substrates

- Composites
- Glass, carbon fabrics...
- Paper, wardboard, leather
- Foam (PVC, PU, PS...)
- Metal
- Stone, marble, concrete...



Resin SR TopClear 1054

		SR TopClear 1054
Aspect and color		Colorless to light yellow liquid
Pt/Co color		< 250
Density (g/cm³)	20 °C	1.07
Viscosity (mPa.s)	20 °C	1 600
	25 °C	970
	30 °C	620

Hardener SD TopClear 1533

		SD TopClear 1533
Aspect and color		Colorless liquid
Pt/Co color		< 40
Density (g/cm³)	20 °C	1.15
Viscosity (mPa.s)	20 °C	1 000
	25 °C	700
	30 °C	500

Mix SR TopClear 1054 / SD TopClear 1533

		SR TopClear 1054 SD TopClear 1533
Mixing ratio	By weight	100 / 66
	By volume	100 / 62
Viscosity (mPa.s)	20 °C	2 100
	30 °C	1 100
T_g onset max. (°C)		64

UV ageing – WOM Test

Test duration (h)		0	500	1 000	1 500
Gloss 60°		90	92	92	92
Color	L	0	0	0	0
	a	0	0	0	0
	b	0	0	0	0
	dE	0	0	0	0

Indicative data on application for 150 µm film

At 20 °C	SR TopClear 1054 SD TopClear 1533 + 15 % ABu
Pot life 300 mL	20 min
Dust free	20 min
Sandable / Overcoating min. time	1 h

Surface preparation

Before application, the surface must be dried and cleaned, sanded with a 120 grain. Be carefull to have a surface free of substances that could interfere with the coating adhesion (waxes, oil, grease or surfactant).

In the case of lamination or a gelcoat application, please consult us in regards to the release agent treatment.

Use and application

Be carefull to mix well both components together quickly, respecting the mixing ratio recommended.

Application time without thinner : 5 min

Minimum application temperature : 15 min

A small quantity of water can accelerate the polymerization. Prevent high humidity content, it can significantly reduce the use time, lower the clearness of the surface or favor the apparition of bubbles.

Thinner

For spray applications, dilute from 15 to 30 % straight after mixing both components.

Recommended thinner : Sicomin Thinner Abu

Nozzle diameter : 1.5 to 2 mm

Tests carried out on samples of pure cast resin, without prior degassing, between steel plates.

Measures undertaken according to the following norms:

Mechanical tests:

Tension:	NF EN ISO 527-2:2012
Flexion:	NF EN ISO 178:2011
Compression:	NF EN ISO 604:2004 or NF EN ISO 844:2014 (foam product)
Charpy impact strength:	NF EN ISO 179-1:2010
Shear Strength:	ASTM D732-17 (Punch Tool)
Interlaminar shrinkage strength:	ASTM D5528-13
Toughness (GIC et KIC) :	ISO 13586:2000

Water absorption: Internal. Polymerization according to cycle, machining, weighing, time spent

in distilled water at 70 °C / 48 hours, weighing 1 hour after emerging,

Bonding Strength Double lap shear:

ASTM D3528-96
ADH = adhesive failure
COH = cohesive failure
TLC = thin-layer cohesive failure
FT = fiber-tear failure.
LFT = light-fiber-tear failure

Thermal tests:

Glass transition DSC: NF EN ISO 11357-2:2014 -5°C to 180 °C under nitrogen gas
T_{G1} or Onset: 1st scan at 20 °C/min
T_{G1} maximum or Onset: 2nd scan at 20 °C/min

Glass transition DTMA: atmosphere

Temperature ramp 0 °C to 180 °C @ 2°C/min under normal

NF EN ISO 11357-1:2016 T_G onset G'
ASTM D4065-12 T_G peak G''

Physical tests:

Gardner color:	NF EN ISO 4630:2016	Visual method
Refractive index:	NF ISO 280:1999	
Viscosity:	NF EN ISO 3219:1994	Rheometer 50 mm, shear 10 s ⁻¹
Density on liquids:	ISO 2811-1:2016	Pycnometer
Density on solid:	NF EN ISO 1183-3:1999	Helium Pycnometer
Density on foam:	NF EN ISO 845:2009	
Gel time: s ⁻¹	Cross G' G''	Rheometer CP50 - Shear rate 10
Green Carbone content:	ASTM D6866-16 or XP CEN/TS 16640 Avril 2014	

TA: Ambient temperature (20 to 25 °C)

NC: No information Communicated

NB: No Breaking (maximum flexion deformation : 15 %)

UV test

WOM-Test DIN EN ISO 16474-2 Peocess A1 Xenontest : WOM CI 4000 Atlas

LEGAL NOTES:

Information given in writing or verbally, in the context of our technical assistance and our trials, does not engage our responsibility. Information is given in good faith based on SICOMIN's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with SICOMIN's recommendations. We advise users of SICOMIN products to check by some practical trials that they are suitable for the intended processes and applications. The customer's storage, the use, the implementation and the transformation of the supplied products are not under SICOMIN's control and entirely under the sole responsibility of the user.

SICOMIN reserves the right to change the properties of its products. All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data and tolerance may vary due to circumstances beyond our control.

If our responsibility should nevertheless be involved, it would be, for all the damages, limited to the value of the goods supplied by us and processed by the customer. We guaranty the non-reproachable quality of our products, in the general context of sales and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.