

SG *GreenCoat Incolore* / SD *GreenCoat Incolore Standard*



SG *GreenCoat Incolore* is a clear and transparent gelcoat specially designed for aesthetic parts.

SG *GreenCoat Incolore* has a good UV resistance with 51% of biobased carbon in the resin part and 37% in the final mixture.

		SD Green Coat Incolore Standard
Reactivity level		Standard
Initial viscosity (mPa.s)	@ 20 °C	110000
	@ 30 °C	120000
Pot Life (150 g)	@ 20 °C	14 min
	@ 30 °C	6 min
Mixing ratio	By weight	100 / 48
	By volume	100 / 50
TG1 max onset	°C	71
Open time	@ 20° C	40 min
	@ 30 °C	20 min
Overcoating mini time	@ 20° C	07 h 00
	@ 30 °C	03 h 30
Overcoating maxi time	@ 20° C	24 h 00
	@ 30 °C	13 h 20
Dust-free	@ 20° C	03 h 30
	@ 30 °C	02 h 00
Hard to the touch	@ 20° C	10 h 00
	@ 30 °C	05 h 00
Consumption (g/m ²)	(g/m ²)	1000 - 3000
Hardness	(Shore D 0-15 s)	88 - 86

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SG GreenCoat Incolore has a good UV resistance with 51% of biobased carbon in the resin part and 37% in the final mixture.

Generally intended for the production of epoxy laminates in open molds, infusion or RTM. We recommend applying 400 to 500 g/m² of gel coat in the mold and apply the epoxy system as soon as possible.

Fastening is optimized by the use of matt 100 or 200 g/m² in the first layer.



Epoxy resin SG Green Coat Incolore

Appearance		gel
Color		purple
Gardner color		≤ 0
Viscosity (mPa.s)	@ 15 °C	6400 ± 1300
	@ 20 °C	3700 ± 750
	@ 25 °C	2200 ± 450
Density	@ 20 °C	1,1700
Storage (months)	@ Ta	24
Dry extract %		100

Hardener(s)

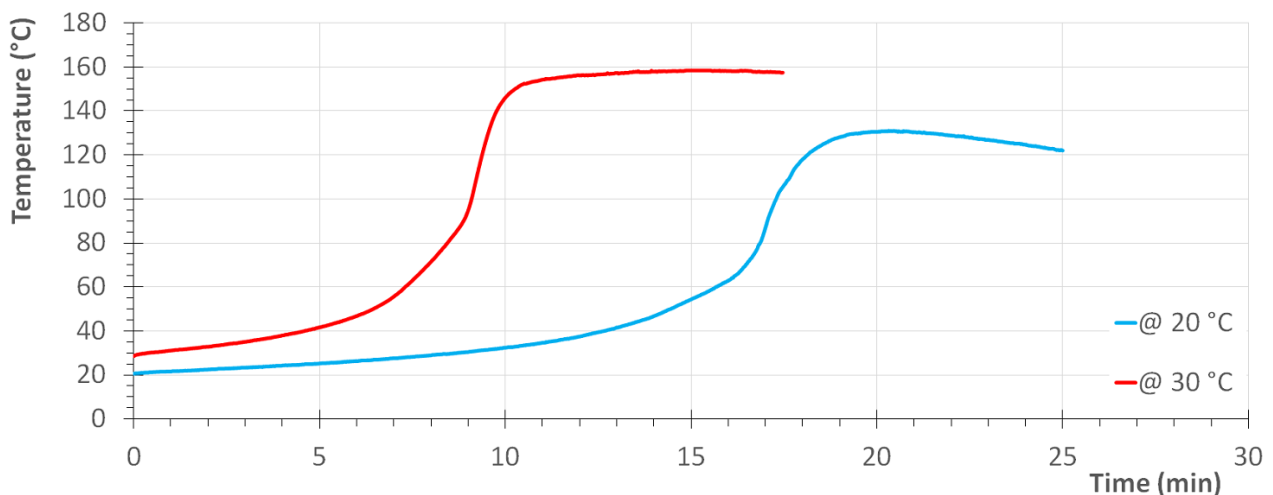
		SD Green Coat Incolore Standard
Appearance		gel
Color		colourless
Gardner color		≤ 0
Reactivity level		Standard
Viscosity (mPa.s)	@ 15 °C	78450 ± 15700
	@ 20 °C	62400 ± 12500
	@ 25 °C	51450 ± 10300
Density	@ 20 °C	1,0500
Storage (months)	@ Ta	12
Dry extract %		

Mixe(s) SG GreenCoat Incolore / SD GreenCoat Incolore Standard

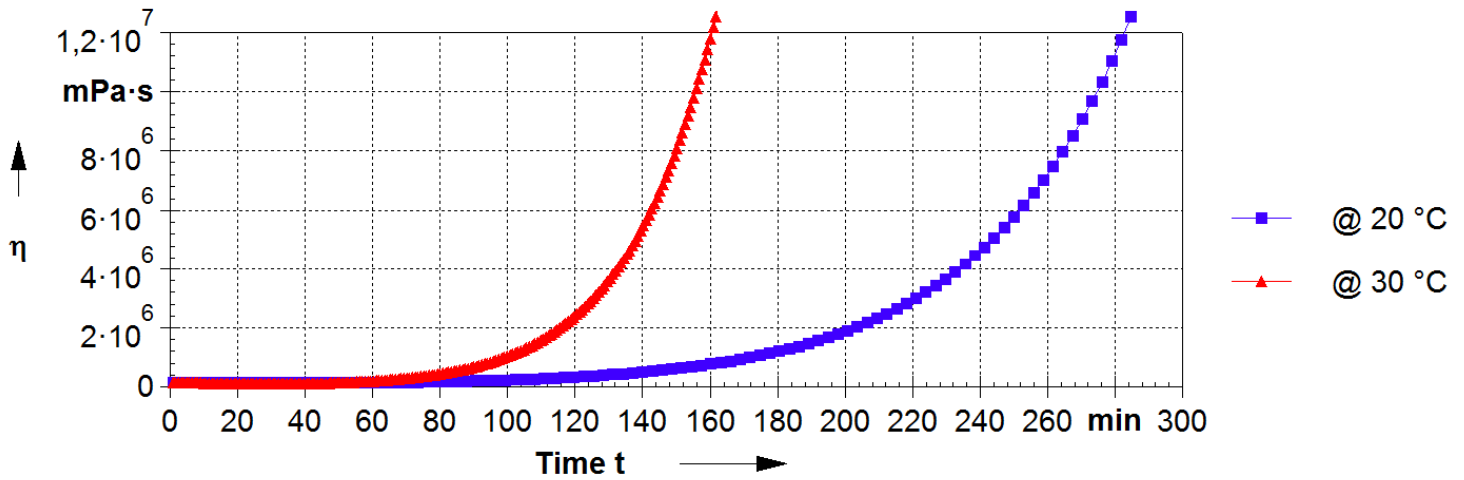
		SD Green Coat Incolore Standard
Appearance		gel
Color		colourless
Mixing ratio		
	By weight	100 / 48
	By volume	100 / 50
Initial viscosity (mPa.s)	@ 20 °C	110000
PP 50 mm / 10 s ⁻¹	@ 30 °C	120000
Density	@ 20 °C	1,1646
Consumption (g/m ²)	(g/m ²)	1000 - 3000
Spread rate (g/m ²)	(m ² /kg)	0,33 - 1
Thickness (mm)	(mm)	1 - 3

Reactivity for 150 g

	20 °C	30 °C	°C
Exothermic temperature (°C)	131	158	
Exothermic peak time	20 min	13 min	-
Time to reach 50 °C	14 min	6 min	-



@ 20 & 30 °C



Coating properties :

		SG Green Coat Incolore / SD Green Coat Incolore Standard		
Curing cycles	→	24 h @ TA + 8 h @ 60°C		
DSC glass transition				
TG1 onset	°C	69		
TG1 max onset	°C	71		
Hardness				
Shore D 0-15s		88 - 86		

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: Temperature ramp 0 °C to 180 °C @ 2°C/min under normal atmosphere
 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:	Cross G' G''	Rheometer CP50 - Shear rate 10 s ⁻¹
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 %)

Table 1st page:

Pot Life:	Time to reach 50 °C or time limit for use
Gel time:	Intersection of tangents on the viscosity curve of 1 mm thick layer
Release time:	Time required to obtain sufficient mechanical strength to release
Minimum Vacuum Time:	Time in which vacuum can be applied (25000 mPa.s)
Maximum Vacuum time:	Limit time below which a vacuum can be applied (G'G'' crossing)
Optimum Infusion time:	Time to reach 400 mPa.s
Max Infusion Time:	Time to reach 25000 mPa.s
Vacuum cut-off time:	Time to reach G'G'' crossover + 20%

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