

MIXTOOL SR 600 / SD 605

Machinable tooling paste

Very low density tooling paste.

- Very easy to use, can also be used manually.
- Applies up to 40 mm thick.
- Non abrasive, tool friendly.
- User friendly, yields very few small dust particles.
- Excellent surface appearance, very smooth and fine.
- Very good temperature stability up to 70 °C.
- Glass transition temperature DTMA T_g max = 76 °C

Epoxy resin MIXTOOL SR 600

Appearance		paste
Color		blue
Gardner color		
Platine Cobalt Color Index		
Viscosity (mPa.s)	@ 15 °C	236000 ± 47000
	@ 20 °C	139000 ± 28000
	@ 25 °C	92400 ± 18500
	@ 30 °C	67500 ± 13500
	@ 40 °C	43000 ± 8600
Density	@ 20 °C	0,5350
Refractive index	@ 25 °C	1,5571
Storage (months)	@ Ta	24
Dry extract %		100

Hardener(s)

		MIXTOOL SD 605
Appearance		paste
Color		yellow
Gardner color		
Platine Cobalt Color Index		
Reactivity level		Standard
Viscosity (mPa.s)	@ 15 °C	259000 ± 51800
	@ 20 °C	178000 ± 35600
	@ 25 °C	139000 ± 27800
	@ 30 °C	113000 ± 22600
	@ 40 °C	77000 ± 15400
Density	@ 20 °C	0,5200
Refractive index	@ 25 °C	1.5182
Storage (months)	@ Ta	18
Dry extract %		100

Mixe(s) MIXTOOL SR 600 / SD 605

		MIXTOOL SD 605
Appearance		paste
Color		vert 1
Mixing ratio		
	By weight	100 / 100
	By volume	100 / 100
Initial viscosity	@ 20 °C	2440000
PP 50 mm - 10 s-1 (mPa.s)	@ 30 °C	2198000
Recommanded consumption	@ 25 °C	< 15 000
Spread rate (g/m ²)	@ 25 °C	> 0,07
Recommended thickness (mm)	@ 25 °C	< 30

Reactivity @ 20 °C on 500 g

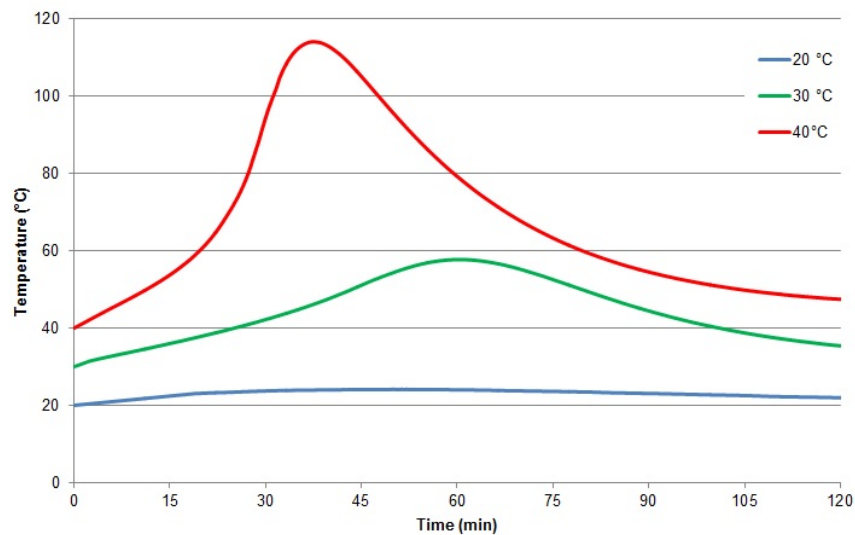
	MIXTOOL SD 605
Exothermic temperature (°C)	26
Time to reach exothermic peak	60
Time to reach 50 °C (min)	0

Reactivity @ 30 °C on 500 g

	MIXTOOL SD 605
Exothermic temperature (°C)	58
Time to reach exothermic peak	56
Time to reach 50 °C (min)	43

Reactivity @ 40 °C on 500 g

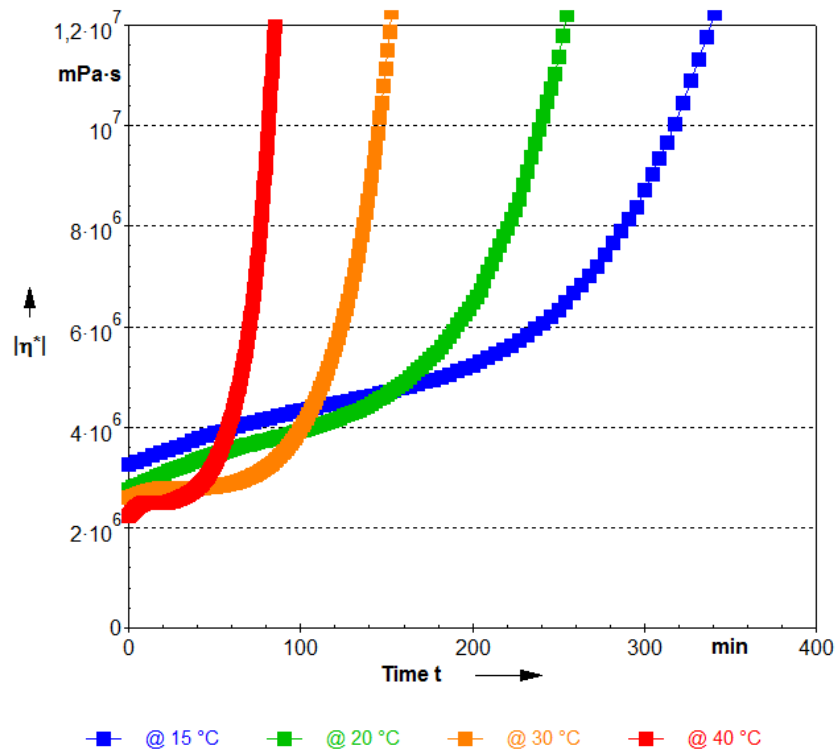
	MIXTOOL SD 605
Exothermic temperature (°C)	114
Time to reach exothermic peak (min)	37
Time to reach 50 °C (min)	12



Reactivity on 2 mm thick layer

	MIXTOOL SR 600 / MIXTOOL SD 605	
Substrat temperature	20 °C	25 °C
Open time	30	NC
Overcoating	6 h 30	NC
Dust-free	7 h 00	NC
Gel time G'G''	6 h 20	NC
Hard to the touch	12 h 00	NC
Sandable	18 h 00	NC

@ 15, 20, 30, 40 °C



Coating properties :

		MIXTOOL SR 600 / MIXTOOL SD 605		
Curing cycles	→	48 h @ TA	48 h @ TA + 16 h @ 60 °C	
DSC glass transition				
TG1 onset	°C	44	67	
TG1 max onset	°C		76	
Hardness				
Shore D 0-15s		59 - 55		

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,

Thermal tests:

Glass transition DSC:	NF EN ISO 11357-2:2014	-5°C to 180 °C under nitrogen gas
	T_{G1} or Onset:	1 st 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)

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