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Sticks.

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Hydroxyl polyester polyurethanes –
solving problems in a variety of applications

Desmocoll®

Desmocol® General information

Product safety

All Desmocol® grades are basically safe under the usual application conditions, provided the normal safety-at-work procedures are observed during processing. Inhalation of dust from the product (powdering agent) should be avoided. Especially when formulating with flammable solvents, precautions must be taken to eliminate ignition sources through electrostatic charge. The safety data sheet for Desmocol® should also be consulted.

Forms of supply

Desmocol® is supplied in granulated form as small lentils to ensure optimum dissolving. The lentils are lightly powdered to prevent them from sticking together. The color of the lentils can fluctuate between colorless and slightly yellowish, but this has no influence whatsoever on the adhesive properties. The low-crystallizing grades are packed in 25 kg cartons, and the others in 25 kg sacks. Both the cartons and the paper sacks have an inner polyethylene liner. 30 units are loaded on a pallet to give a total weight of 750 kg, then shrink-wrapped with polyethylene film.

Storage

All Desmocol® grades have excellent stability. Properly stored – i.e. cool and dry – the storage stability is at least 6 months. Desmocol® must be protected from direct sunlight.

Disposal

Unusable Desmocol® residues should be disposed of in an incinerator in accordance with local regulations. Within Germany packaging is taken back. Outside the area covered by the German packaging regulations, carefully emptied sacks can be disposed of in local or industrial incinerators.

Desmocol® Summary of grades

Chemical composition:
predominantly linear hydroxyl polyurethane.

Specified properties														
	Solution viscosity at 23° C 15 % in MEK ISO 3219/ISO 2555 [mPa·s]	Hydroxy-content DIN 52340 [%]	Density DIN 53479 [g/cm³]	Crystallization DIN 53505 Time approx.	Min. activation temperature KU 9* [° C]	Hot-tack life KU 10* [min.]	Softening point ASTM D 816 [° C]	Solubility					Bonding of of plasticised substr. DIN 53273	Appearance
								soluble +		swelling +/-		insoluble –		
								MEK	Acetone	Ethylacetate	Acetone/ Toluene 2:1	MEK/ Ethylacetate 1:1		
Desmocol® 140	90 +/- 30	< 0.1	approx. 1.2	48 h	45	2	< 40	+	+	+	+	+	no	transparent
Desmocol® 176	600 +/- 200	< 0.1	approx. 1.2	48 h	45	2	45	+	+	+	+	+		turbid
Desmocol® 400/1	600 +/- 200	< 0.1	approx. 1.2	30 min.	50	4	50	+	+	+	+	+	very good	transparent
Desmocol® 400/2	1,000 +/- 200	< 0.1	approx. 1.2	30 min.	50	4	50	+	+	+	+	+	very good	transparent
Desmocol® 400/3	1,750 +/- 550	< 0.1	approx. 1.2	30 min.	50	4	50	+	+	+	+	+	very good	transparent
Desmocol® 406	600 +/- 200	< 0.1	approx. 1.2	72 h	50	4	40	+	+	+	+	+	very good	turbid
Desmocol® 500/1	225 +/- 175	< 0,1	approx. 1.2	5 min.	50	4	50	+	+	+	+	+	excellent	transparent
Desmocol® 500/2	600 +/- 200	< 0,1	approx. 1.2	5 min.	50	4	50	+	+	+	+	+	excellent	transparent
Desmocol® 526	600 +/- 200	< 0,1	approx. 1.2	48 h	50	3	60	+	+	+/-	+	+	excellent	turbid
Desmocol® 530/1	690 +/- 310	< 0,1	approx. 1.2	30 min.	55	3	75	+	+	+/-	+	+	excellent	transparent
Desmocol® 530/2	1,200 +/- 200	< 0,1	approx. 1.2	30 min.	55	3	75	+	+	+/-	+	+	excellent	transparent
Desmocol® 530/3	1,950 +/- 550	< 0,1	approx. 1.2	30 min.	55	3	75	+	+	+/-	+	+	excellent	transparent
Desmocol® 540/1	300 +/- 200	< 0,1	approx. 1.2	10 min.	60	4	80	+	+	–	+/-	+/-	excellent	slightly turbid
Desmocol® 540/2	750 +/- 250	< 0,1	approx. 1.2	10 min.	60	4	80	+	+	–	+/-	+/-	excellent	slightly turbid
Desmocol® 540/3	1,250 +/- 250	< 0,1	approx. 1.2	10 min.	60	4	80	+	+	–	+/-	+/-	excellent	slightly turbid
Desmocol® 540/4	1,800 +/- 300	< 0,1	approx. 1.2	10 min.	60	4	80	+	+	–	+/-	+/-	excellent	slightly turbid
Desmocol® 540/5	2,850 +/- 750	< 0,1	approx. 1.2	10 min.	60	4	80	+	+	–	+/-	+/-	excellent	slightly turbid
Desmocol® 621/1	1,800 +/- 300	< 0,1	approx. 1.2	2 h	55	8	70	+	+	+/-	+	+	very good	transparent
Desmocol® 621/2	2,600 +/- 500	< 0,1	approx. 1.2	2 h	55	8	70	+	+	+/-	+	+	very good	transparent
Desmocol® XP 2597/2	750 +/- 250	< 0,1	approx. 1.2	30 min.	45	6	75	+	+	–	+	+/-	very good	slightly turbid
Desmocol® XP 2597/3	1,250 +/- 250	< 0,1	approx. 1.2	30 min.	45	6	75	+	+	–	+	+/-	very good	slightly turbid
Desmocol® XP 2597/4	1,850 +/- 350	< 0,1	approx. 1.2	30 min.	45	6	75	+	+	–	+	+/-	very good	slightly turbid
Desmocol® XP 2597/5	2650 +/- 450	< 0,1	approx. 1.2	30 min.	45	6	75	+	+	–	+	+/-	very good	slightly turbid

Measuring conditions for the Haake rotational viscometer – Type: RV 12/20 MV-DIN	
Viscosity range [mPa·s]	Setting
60–300	256
300–1100	128
1100–2000	64
2000–4000	32

* Further specification ranges for some Desmocol® grades are available on request.

The specification ranges indicated above refer to 15 % solutions in butanone-2 (MEK).

The solution viscosity is determined according to ISO 3219 with a Haake rotational viscometer (see table for details).

Alternative measuring method:

Brookfield LVF viscometer, according to ISO 2555 (see table for details).

Repeated measurements using both methods give identical average values but the results from the Haake viscometer have less scatter and are therefore used for batch release.