

SYNTHOPOL
THE RESIN COMPANY
SYNTHOESTER 215 HS

(formerly SE TH 1253)

Charakteristics: Hydroxylgroup containing, high solid polyester resin

Supplied as: 80% in butyl acetate

Use: In combination with melamine resins and CAB for base-coat enamels. In combination with aliphatic polyisocyanates air- and oven-drying 2 pack high-solid laquers and fillers with high mechanical properties, high gloss and body, very good chemical- and weatherresistance. Compatible with nearly all acrylic resins, CAB and HL. VOC-value of 390 g/l laquer at 21 sec. is possible. Suitable for industrial coatings, vehicles, train, plastics, wood, pigmented pastes a.s.o.

Properties:	<u>hydroxyl value</u> (in-house method AV-F-H003)	205 - 235
	<u>hydroxyl content</u> (relativ to nvc)	6.7%
	<u>viscosity in mPas</u> (delivery form) (in-house method AV-F-V005)	16 000 - 24 000
	<u>Hazen colour value</u> (as supplied) (in-house method AV-F-F007)	< 100
	<u>non-volatile content</u> (as supplied) (in-house method AV-F-F003)	80 +/- 1%
	<u>flash point in °C</u> (as supplied) (In-house method AV-F-F006)	appr. 26
	<u>density in g/ml</u> (as supplied) (in-house method AV-F-D001)	appr. 1.05
	<u>acid value</u> (relativ to nvc) (In-house method AV-F-S001)	14 - 20

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Mixing ratio with polyisocyanat:

Assuming equivalent reaction of the reactive groups (NCO:OH = 1:1), the following formula applies for the calculation of the added amount of polyisocyanate (relative to 100 parts by weight of SYNTHOESTER, solid):

$$\frac{42 \times 100 \times 6.7}{17 \times \text{NCO } \%}$$

42 = molecular weight to the NCO group
 17 = molecular weight of the OH group
 6,7 = hydroxyl content of SYNTHOESTER in % relative to solid resin.

Solubility/Dilutability:

Solvent	Dilute solution clear until ...% non-vol. comp.						
	70	60	50	40	30	15	5
Ethyl acetate	+	+	+	+	+	+	+
Butyl acetate	+	+	+	+	+	+	+
Butoxyl	+	+	+	+	+	+	+
Ethoxy propyl acetate	+	+	+	+	+	+	+
MEK	+	+	+	+	+	+	+
MIBK	+	+	+	+	+	+	+
Shellsol A	+	+	+	+	+	+	+
Solvesso 150	+	+	+	+	+	+	0
Toluene	+	+	+	+	+	+	+
Xylene	+	+	+	+	+	+	+
White spirit K 30	-	-	-	-	-	-	-

(+ = completely clear, o = slightly turbid, - = very turbid)

It is important to use only hydroxylgroup-free solvents for dilution.

Compatibility:

Non-vol.com. Synthoester	90	75	50	25	10
Non-vol.com. reaction partner	10	25	50	75	90
Synthalat A- 045	-	-	-	+	+

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Synthalat A- 055	+	+	+	+	+
Synthalat A- 060	+	+	+	+	+
Synthalat A- 065	+	+	+	+	+
Synthalat A- 075	+	+	+	+	+
Synthalat A- 077	+	+	+	+	+
Synthalat A- 084	+	+	+	+	+
Synthalat A- 085	+	+	+	+	+
Synthalat A- 088 MS	+	+	+	+	+
Synthalat A- 120	+	+	+	+	+
Synthalat A- 125	+	+	+	+	+
Synthalat A- 135	+	+	+	+	+
Synthalat A- 135 N	+	+	+	+	+
Synthalat A- 125 HS	+	+	+	+	+
Synthalat A- 141 HS	+	+	+	+	+
Synthalat A- 147 HS	+	+	+	+	+
Synthalat A- 150	+	+	+	+	+
Synthalat A- 150 S	+	+	+	+	+
Synthalat A- 151	+	+	+	+	+
Synthalat A- 156 HS	+	+	+	+	+
Synthalat A- 190	+	+	+	+	+
Synthalat A- 191	+	+	+	+	+
Synthalat A- 192	+	+	+	+	+
Synthalat A- 200	+	+	+	+	+
Synthalat A- 1613	+	+	+	+	+
Synthalat A- 1615	+	+	+	+	+
Synthalat A- 1633	+	+	+	+	+
Synthalat A- 1653	+	+	+	+	+
Synthoester- HD 080	+	+	+	+	+
Synthoester- HD 165	+	+	+	+	+
Synthoester- HD 170 HS	+	+	+	+	+
Synthoester- 186 HS	+	+	+	+	+
Synthalan- LS 768	+	+	+	+	+
Synthalan- HS 86 B	+	+	+	+	+
CAB 20%ig Buac 551-0,01	+	+	+	+	+
CAB 20%ig Buac 551-0,20	+	+	+	+	+
CAB 20%ig Buac 381-0,10	+	+	+	+	+
CAB 20%ig Buac 381-0,50	+	+	+	+	+
CAB 15%ig Buac 381-2,00	+	+	+	+	+

Compatibility NCO : OH 1:1

Desmodur N 75	+	Desmodur HL	+
Desmodur N 3390	+	Desmodur VP-LS 2025	+
Desmodur L 75	+	Vestanat T 1890 L	+
Desmodur L 67	+	Tolonate HDT-LV	+
Desmodur IL	+		

+ = compatible

- = incompatible