

SYNTHALAT A 200

Charakteristics:	Acrylic/epoxide resion cross-linking with polyisocyanate	
Supplied as:	72% in xylene/shellsol A/butoxyl (2:2:1)	
Use:	In combination with aliphatic polyisocyanates air-drying and oven-drying two-component primers with excellent filling properties, quick drying and good adhesion to steel, aluminium and zinc that give good results in the condensed moisture test and salt spray test. These types of two-component primers are used preferably wherever maximum corrosion resistance and adhesion are required.	
Properties:	<u>hydroxyl value</u> (in-house method AV-F-H003)	200-250
	<u>hydroxyl content</u> (relative to nvc)	ca. 6.0%
	<u>viscosity in mPas</u> (as supplied) (in-house method AV-F-V005)	12,000-17,000
	<u>Gardner colour value</u> (as supplied) (in-house method AV-F-F007)	< 2
	<u>non-volatile content</u> (as supplied) (in-house method AV-F-F003)	72 +/- 1%
	<u>flash point in °C</u> (as supplied) (in-house method AV-F-F006)	36
	<u>density in g/ml</u> (as supplied) (in-house method AV-F-D001)	1.07
Film properties:	In combination with aliphatic polyisocyanates like „Desmodur N“ primer systems are obtained that give a coating thickness of approx. 15-20 my as wet-in-wet coatings, 25-50 my as primers or 200-300 my (thick coating) as spray fillers. They are used for instance for automotive refinishes, prime coats for buses (composite structure), streetcars and airplanes.	
Pigmentation:	All neutral pigments and fillers are suitable for pigmentation. Basic pigments and pigments containing soluble metallic compounds may have a catalytic effect on curing and shorten the pot life of finished mixed batches.	

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Mixing ratio with polyisocyanate:

Assuming equivalent reaction of the reactive groups ($\text{NCO:OH} = 1:1$), the following formula applies for the calculation of the added amount of polyisocyanate (relative to 100 parts by weight of SYNTHALAT-A 200, solid):

$$\frac{42 \times 100 \times 6.0}{17 \times \text{NCO } \%}$$

42 = molecular weight of the NCO groups
17 = molecular weight of the OH groups
6.0 = hydroxyl content of SYNTHALAT-A 200 in % relative to non-vol. components

Best results are obtained with a mixing ratio of 100 parts by wt. of SYNTHALAT-A 200 (form in which delivered) to 64 parts by weight of Desmodur N 75%. An undercuring or overcuring of up to 20% has only little influence on film properties.

Solubility/ Dilutability:

Ethyl acetate	+	MEK	+
Butyl acetate	+	MIBK	x
EGA	+	Toluene	o
Xylene	o	Solvesso 100 and 150	-
Butoxyl	+	White spirit	-
MGA	+		
+	=	dilutable	- = not dilutable
x	=	largely dilutable	o = limited dilutable

Make sure that only anhydrous solvents and solvents containing no OH groups are used.

Compatibility:

Non-vol. comp.:Synthalat-A 200	90	75	50	25	10 %
Non-vol. comp.:Combination partner	10	25	50	75	90 %
Synthalat A 045	-	-	-	-	-
A 055	-	-	-	-	-
A 065	+	-	-	-	+
A 075	+	+	+	+	+
A 085	-	-	-	-	-
A 135	+	-	-	-	+
A 141 HS	+	+	+	+	+
A 150	+	+	+	+	+
A 151	+	+	+	+	+
A 190	+	+	+	+	+
Synthoester 1130	+	+	-	+	+
NC-Chips E 510	-	-	-	-	+
Vynlite VAGH	-	-	-	+	+
Vynlite VROH	-	-	-	+	+
CAB-381-0.1	-	-	-	-	+

Desmodur N 75% + Assuming an equivalent reaction of the
Desmodur L 75% + reactive groups ($\text{NCO:OH}=1:1$)
Desmodur HL o

+ = compatible
- = incompatible
o = limited compatibility

Shelf-life:

If properly stored at least one year.