SYNTHOESTER 1018

Charakteristics:

Highly branched, saturated polyester containing hydroxyl groups, modified with a low molecular weight fatty acid.

Supplied as:

A = 75% in xylene
B = 75% in butyl acetate

Properties:

	A	B
hydroxyl value (n-house method AV-F-H003)	155-175	155-175
hydroxyl content (relative to nvc)	appr. 5.0%	appr. 5.0%
viscosity in mPas A:(50% Xylene) B:(as supplied) (In-house method AV-F-V005)	130-250	3,000-4,500
Iodine colour value A:(50% Xylene) B:(50% Buac) (in-house method AV-F-F007)	< 3	< 3
non-volatile content (as supplied) (in-house method AV-F-F003)	75 +/- 1%	75 +/- 1%
acid value (relative to nvc) (in-house method AV-F-S001)	< 15	< 15
flash point in °C (as supplied) (in-house method AV-F-F006)	appr. 30	appr. 30
density in g/ml (as supplied) (in-house method AV-F-D001)	1.03	1.08

Properties and fields of use:

In combination with aliphatic or aromatic polyisocyanates, air- and stove-drying two-component coatings with good weathering resistance. The main field of application for Synthoester 1018 in combination with Desmodur L or HL - is the furniture sector. As the combination partner with Synthoester 1165 with Desmodur N for high-grade outside coatings. As a pigment paste resin, as Synthoester 1018 has a good pigment loading and can be combined with many binders.

Pigmentation:

All neutral pigments and fillers are suitable for pigmentation. Basic pigments and pigments containig soluble metallic compounds may exert 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 (NCO : OH = 1:1), the following formula applies for calculation of the amount of polyisocyanate to be added (relative to 100 parts by weight of solid Synthoester 1018):

$$\text{Amount of polyisocyanate to be added:} \quad \frac{42 \times 100 \times 5}{17 \times \text{NCO \%}}$$

42 = molekular weight of the NCO group
17 = molecular weight of the OH group
5 = hydroxyl content of SYNTHOESTER 1018 in % relative to non-volatile components

Best results are obtain with a mixing ratio of:

100 parts by weight SYNTHOESTER 1018 with
80 parts by weight Desmodur L - 67% or
55 parts by weight Desmodur N - 75%.

Dilutability:

Synthoester 1018 can be diluted in any proportion with aromatic solvents, esters, ketones and glycol ether esters. It is important to take care that only anhydrous solvents and solvents that do not contain any hydroxyl groups are used.

Compatibility:

Synthoester 1018 is compatible with the polisocyanates Desmodur N, L, HL, IL and VL. It is also compatible with the Synthoesters 1080, 1110, 1120, 1130, 1065 an 1165 special, and to a certain degree with 1165.

In addition, it is compatible with Synthalat A 150/A 151 and physically drying binders like CN-chips or copolymers.

Storage:

In closed containers, protected from moisture, can be stored for at least 12 months.

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