



## SYNTHALAT A 077

### Characteristics:

Polyisocyanate-curing acrylic resin

### Supplied as:

A = 60% in shellsol A  
B = 60% in xylene

### Use:

2-pack coatings which are air- and oven-drying in combination with aliphatic polyisocyanates, for industrial coatings offering good mechanical properties plus resistance to chemical attack and weathering.

### Properties:

	A	B
<u>hydroxyl value</u> (in-house method AV-F-H003)	80-100	80-100
<u>hydroxyl content</u> (relative to nvc)	ca. 2.6%	ca. 2.6%
<u>flow time in sec.</u> A (50% in Shellsol A) (in-house method AV-F-V003)	50-60	----
<u>viscosity in mPas</u> (as supplied) (in-house method AV-F-V005)	----	1300-2300
<u>Gardner colour value</u> A (50% in Shellsol A) B (as supplied) (in-house method AV-F-F007)	< 2	< 2
<u>non-volatile content</u> (as supplied) (in-house method AV-F-F003)	60 +/- 1%	60 +/- 1%
<u>flash point in °C</u> (as supplied) (in-house method AV-F-F006)	ca. 40	ca. 24
<u>density in g/ml</u> (as supplied) (in-house method AV-F-D001)	0.983	1.01

### Pigmentation:

Any neutral pigments or fillers are suitable for pigmentation. Basic pigments and pigments containing soluble metal compounds may have a catalytic effect on curing and shorten the pot life of coating batches once mixed.

### Mixing ratio with poly-isocyanates:

Based on an equivalent reaction of the reactive groups (NCO : OH = 1 : 1) the formula below calculates the quantity of polyisocyanate to be added, relative to 100 pts/wt solid Synthalat A 077:

$$\frac{42 \times 100 \times 2.6}{17 \times \text{NCO}\%}$$

42 = molecular weight of NCO groups  
17 = molecular weight of OH groups  
2.6 = % hydroxyl content of Synthalat-A 077, relative to non-volatile content



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### Solubility/ Dilutability:

Solvent	Thinned solution clear to ..... % non-vol. comp.				
	50	40	30	15	5
Ethyl acetate	+	+	+	+	+
Butyl acetate	+	+	+	+	+
Xylene	+	+	+	+	+
Shellsol A	+	+	+	+	+
Solvesso 150	+	+	+	+	+
Ethoxypropyl acetate	+	+	+	+	+
MEK	+	+	+	+	+
MIBK	+	+	+	+	+
Toluene	+	+	+	+	+
Butoxyl	+	+	+	+	+
White spirit	+	-	-	-	-

+ = perfectly clear  
o = slight turbidity  
- = marked turbidity

NB: only non-aqueous solvents and those containing no hydroxyl groups may be used.

### Compatibility:

Non-vol comp.	A 077 /60%	90	75	50	25	10 %
Non-vol comp. Combined with		10	25	50	75	90 %
Synthalat	A 045	+	+	+	+	+
	A 055	+	+	+	+	+
	A 065	+	+	+	+	+
	A 060	+	+	+	+	+
	A 075	-	-	-	-	-
	A 085	+	+	+	+	+
	A 088 "MS"	+	+	+	+	+
	A 090	+	+	+	+	+
	A 135	+	+	+	+	+
	A 141 HS	+	+	+	+	+
	A 150	+	+	+	+	+
	A 150 S	-	-	-	-	-
	A 151	-	-	-	-	+
	A 190	-	-	-	-	-
	A 192	-	-	-	-	-
	A 1613	+	+	+	+	+
	A 1633	-	-	-	+	+
	A 1653	+	+	+	+	+
Synthoester	HD-080	+	+	+	+	+
	HD 165	-	-	-	-	-
	HD 170 HS	+	+	+	+	+
	1018	-	-	-	-	-
	1130	+	+	+	+	+
Vinylite VAGH		-	-	-	-	+
Vinylite VROH		-	-	-	-	+
NC chips E 510		+	+	+	+	+
CAB 551-001		-	-	-	+	+
Desmodur N 75%:	+				Desmodur N 3390 90%:	+
Desmodur L 75%:	+				Desmodur IL:	-
Desmodur HL:	-					

+ = compatible  
- = incompatible