

HDI Low viscosity TPA-100

Type :

Aliphatic Polyisocyanate (HDI Trimer)

Features:

- # High NCO content
- # Lower viscosity
- # Good coated film appearance
- # Good weather resistance
- # Low residual monomer

Applications:

- # Two-component applications# Plastic coatings# Auto refinish coatings
- # Automobile, motorcycle ; base coat and top coat# Heavy duty coatings

Typical properties:

Appearance	Colorless to slightly yellowish clear liquid
Non-volatile	100 wt%

Solvent	NONE
NCO content	23.1 wt%
Viscosity	1400 mPa .s at 25°C
Color value	<1 (Gardner)
NCO equivalent weight	Approx.182
Flash point	252°C
Density at 20°C	1.17

These values provide general information and are not part of the products specifications.

Stability / thinnability:

DURANATE™ TPA-100 can be thinned with esters, ketones and aromatic hydrocarbons such as ethyl acetate, butyl acetate, methoxypropylacetate (PMA), methyl ethyl ketone, methyl-butyl ketone, cyclohexanone, toluene, xylene, Solvesso #100 and mixture thereof. Generally speaking, it has good compatibility with the solvent mentioned. However, the solutions formed must be tested for their storage stability. Only PU grade solvents can be used (max. 0.05% water, absence of reactive groups such as hydroxyl or amine groups). Aliphatic hydrocarbons such as hexane, cyclohexane, methylcyclohexane and mineral spirits, are unsuitable as solvents because of their poor solubility.

Aromatics	Toluene Xylene Solvesso#100	+ + +
Esters	Ethyl acetate n-Butyl acetate	+ +
Ketones	Methyl ethyl ketone Methyl iso-butyl ketone	+ +
Ether-esters	Methoxypropylacetate (PMA)	+
Aliphatics	Cyclohexane Methylcyclohexane Mineral spirit	~ ~ ~

+ ; Soluble, ~ ; Insoluble

DURANATE™ TPA-100 should not be thinned to below a solid content of 40%. Prolonged storage of solution with lower solid content may result in turbidity and sedimentation.

Compatibility:

<i>With polyisocyanates</i>		<u>Resin solution</u>
DURANATE™	24A-100	+
	22A-75PX	+
	21S-75E	+
	TPA-90SB	+
	TKA-100	+
	MFA-75X	+
	TSA-100	+
	TSS-100	+
	TSE-100	~
	E-402-90T	+
	E-405-80T	+
	D-101	+
D-201	+	
VESTANAT	T1890L	+
	T1890E	+
Desmodur	Z4470	+

+ ; Soluble, ~ ; Insoluble

<i>With polyols and other resins</i>		<u>Resin solution</u>	<u>Dried film</u>
Acrylic	A801	+	+
	A801-P	+	+
	A851	+	+
	50-257	+	+
Halwemer	F-45	+	+
Hypomer	FX-2050	+	+
	FX-3070	+	+
Setalux	1198	+	+
	1753	+	+
Lumiflon	LF-100	+	+
	LF-200	+	+
	LF-400	+	+

+ ; Soluble, ~ ; Insoluble + ; Transparent, ~ ; Hazy

Mixing ratio of DURANATE™ TPA-100 with polyols is based on NC O/OH equivalent ratio of 1/1.

Storage:

DURANATE™ TPA-100 is sensitive to moisture and should therefore always be stored in sealed containers.

Characteristics of viscosity:

1. Solid vs. Viscosity

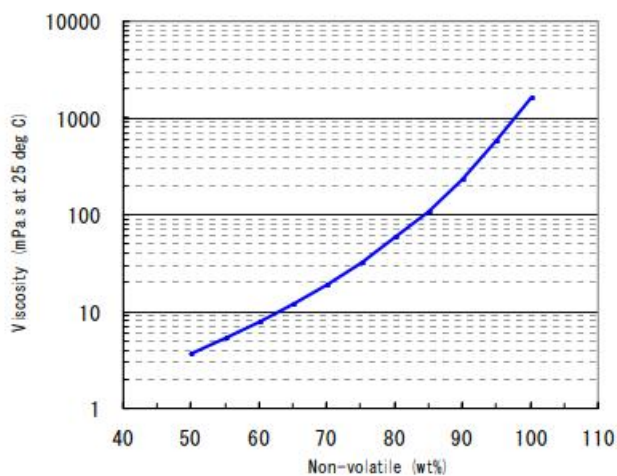


Fig-1. Dilution behavior of DURANATE™ TPA-100

2. Temperature vs. Viscosity

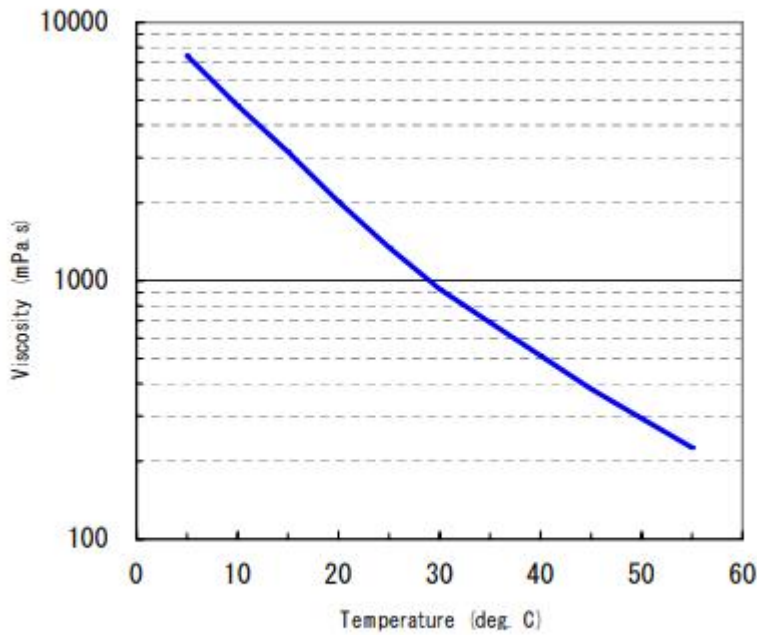


Fig-2. Temperature behavior of DURANATE™ TPA-100

Weatherability:

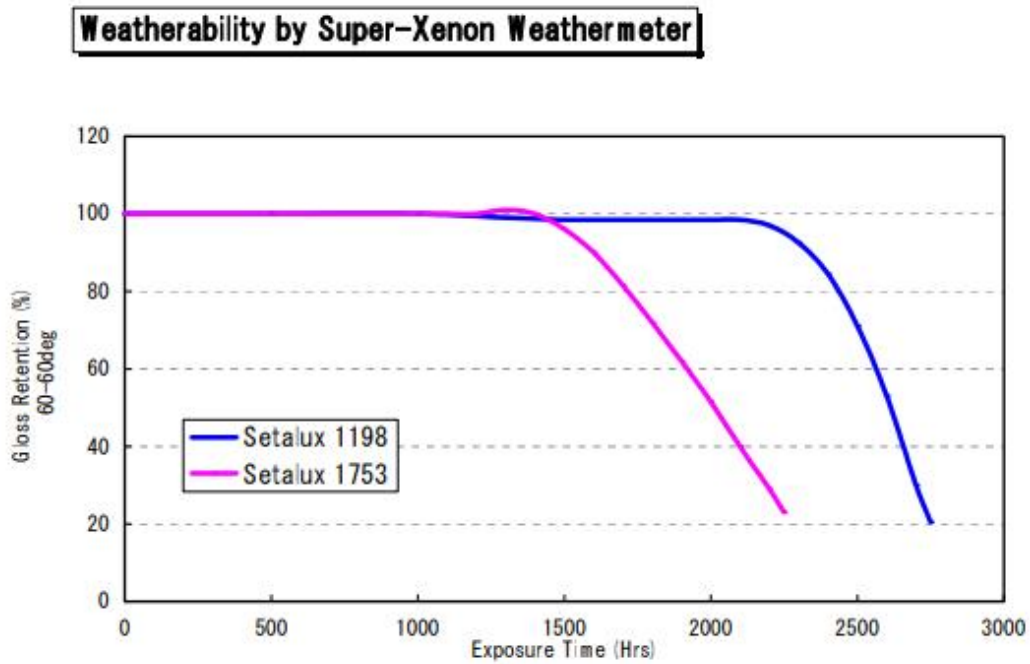


Fig-3. Weatherability of DURANATE™ TPA-100 with acrylic polyol

Polyol; Setalux 1198 & 1753 (Nuplex Resins) Weathered by Super-Xe
non Weathermeter

E_mail us : info@allhdi.com