

Type Aliphatic polyisocyanate based on hexamethylene diisocyanate

Features

- # High NCO content
- # Low viscosity
- # Excellent weather resistance
- # Excellent Compatibility
- # Good coating film appearance

Applications

- # Two-component applications
- # Automotive OEM coatings
- # Automotive refinishes
- # Plastic coatings

Typical properties

Appearance	Colorless to slightly yellowish clear liquid
Non-volatile	100 wt%
Solvent	None
NCO content	23.5 wt%
Viscosity	500 mPa · s at 25°C
Color value	< 1 (Gardner)
NCO equivalent weight	Approx. 180

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

Comparison with Conventional Trimer

	TLA-100	Conv. Trimer
Viscosity mPa · s/25°C	500	2,700
NCO content %	23.5	21.7
Functionality	3.0	3.4
HDI conc. After 50°C · 1 month	Low	Low
Weather resistance of cured film	Excellent	Excellent
Hardness of cured film	High	High

Compatibility with polyols

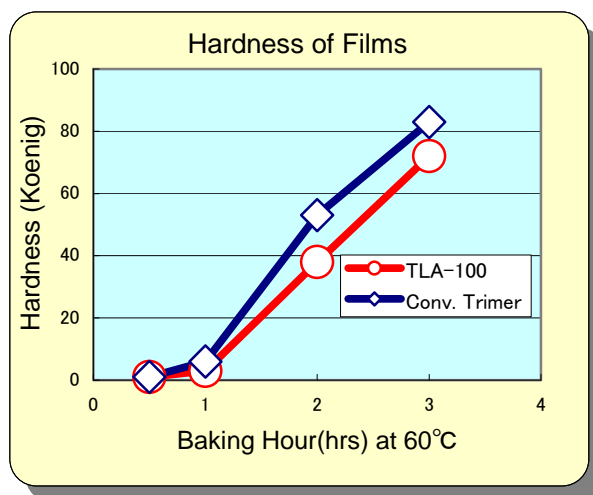
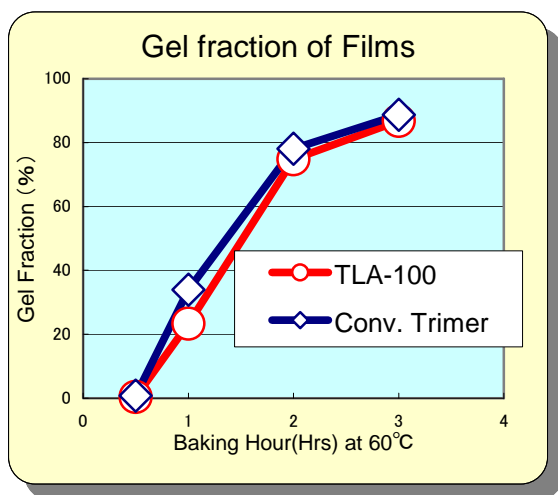
<u>With polyols</u>		<u>Resin solution</u>	<u>Dried film</u>
Acrylic	Setalux 1152(*)	+	+
	Setalux 1184(*)	+	+
	Setalux 1198(*)	+	+
	Setalux 1199(*)	+	+
	Setalux 1767(*)	+	+
	Setalux 1903(*)	+	+
Polyester	Setal 166(*)	+	+

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

(*)Nuplex Resins (ex-Akzo Nobel Resins' product)

Mixing ratio of DURANATE™ TLA-100 with polyols is based on NCO/OH equivalent ratio of 1/1.

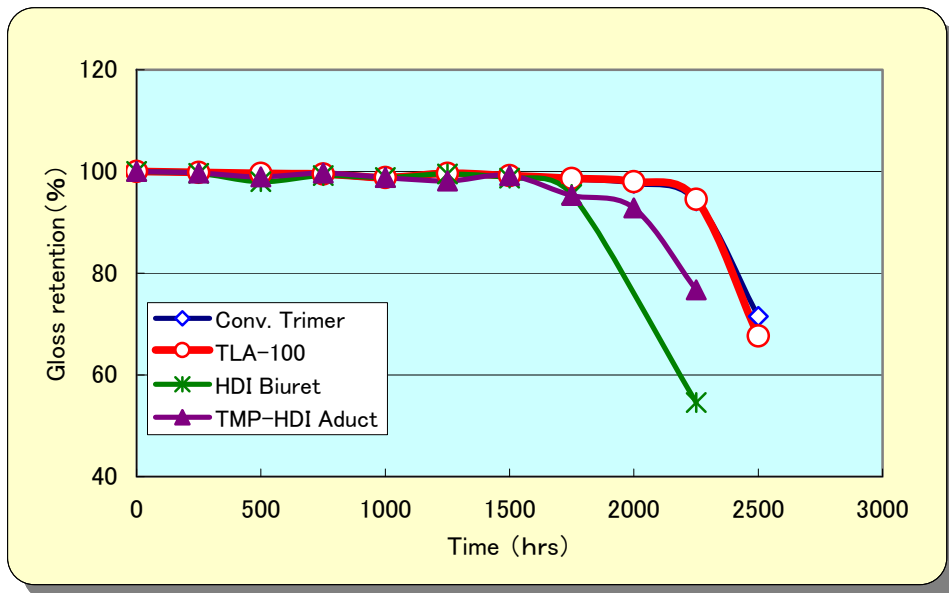
Development of gel fraction & hardness



*Conv. Trimer; Conventional HDI-Trimer

*Paint formulation; Acrylic polyol (Setalux 1903), NCO/OH=1.0

Accelerated Weathering Test (Super Xenon) for Film cured with TLA



*Conv. Trimer; Conventional HDI-Trimer

Test Conditions for Super Xenon;
 Black panel Temp. 63°C. Irradiation intensity; 180W/m²

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