

HDI closed AsahiKasei MF-K60X

Type:

Blocked aliphatic polyisocyanate based on hexamethylene diisocyanate

Features:

Low curing temperature (90°C for base coat application)

Good storage stability

Applications:

One-component applications

Plastic coatings (curing-temp. 90°C for base coat)

Base coat for automotive bumper

Typical properties:

Appearance	Colorless to slightly yellowish clear liquid
Non-volatile	60 wt%
Solvent	Xylene / n-Butanol=15 / 25 (wt%)
Blocked NCO content	6.5 wt%
Viscosity	200 mPa .s at 25C
Color value	<1 (Gardner)

NCO equivalent weight	Approx.646
Flash point	21.1°C

Compatibility:

<u>With polyols</u>		<u>Resin solution</u>	<u>Dried film</u>
Acrylic	Setalux 1184(*)	+	+
	Setalux1767(*)	+	+
Polyester	Setal 90173(*)	+	+
	Setal 6306(*)	+	+

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

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

Mixing ratio of DURANATETM MF-K60X with polyols is based on NCO/OH equivalentratio of 1/1.

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

S.S. of film cured by MF-K60X

Formulation :

·Polyol : manufactured and sold by Akzo

Polyester Polyol; Setal 90173 (OH%=2.27wt%,NV=50wt%)

Acrylic Polyol; Setalux 1184(OH%=2.0wt%,NV=52wt%)

·Blocked Polyisocyanate : DURANATETM MF-K60X

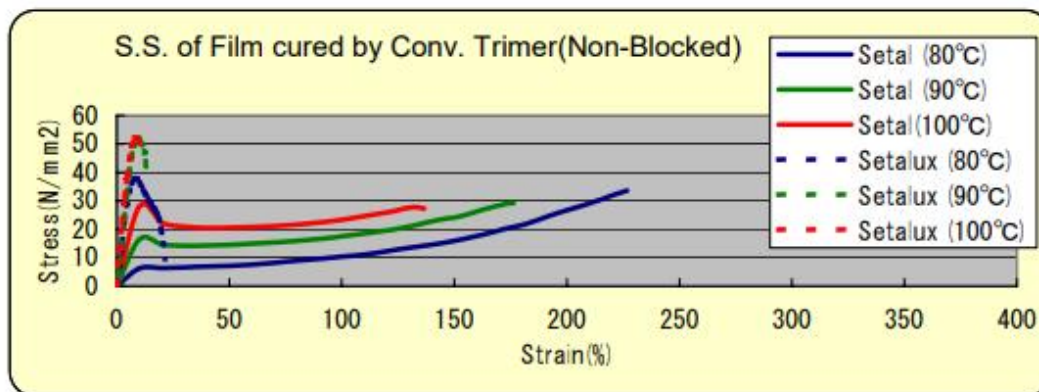
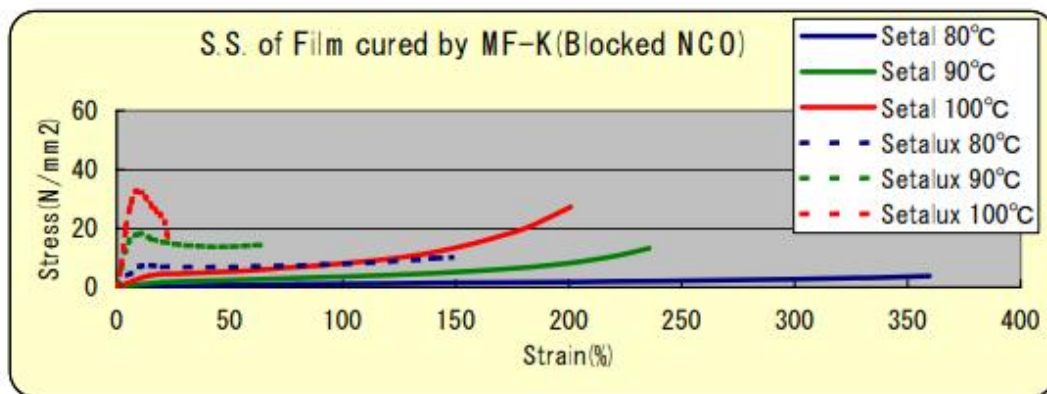
·NCO J OH = 1.0

Bake: 30min.

Gel fraction vs. Curing temperature

Polyol	Gel fraction (wt%)			Hardness of film (Koenig)		
	80°C	90°C	100°C	80°C	90°C	100°C
Setal	63	86	92	3	13	24
90173	(95)	(97)	(97)	(26)	(50)	(79)
Setalux	72	86	91	33	46	88
1184	(89)	(93)	(95)	(74)	(94)	(102)

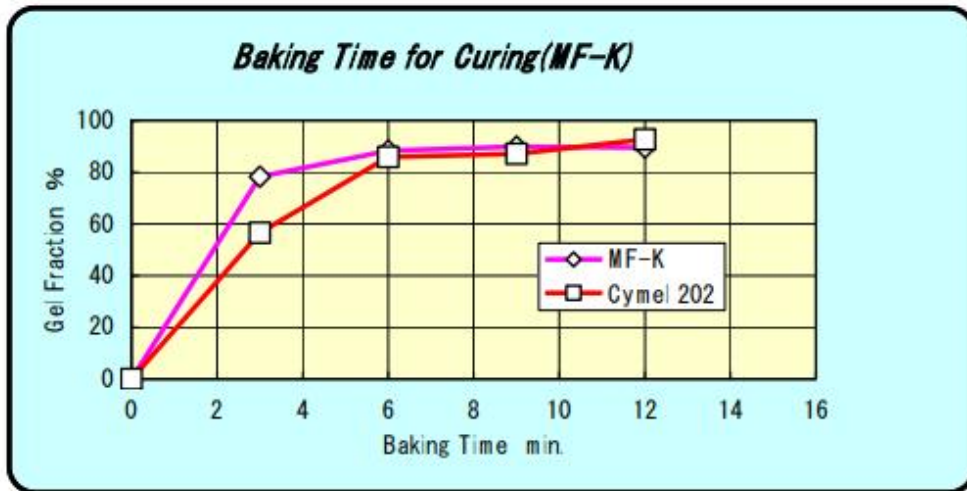
* () ; cured by conventional HDI trimer (Non-Blocked)



High curing speed

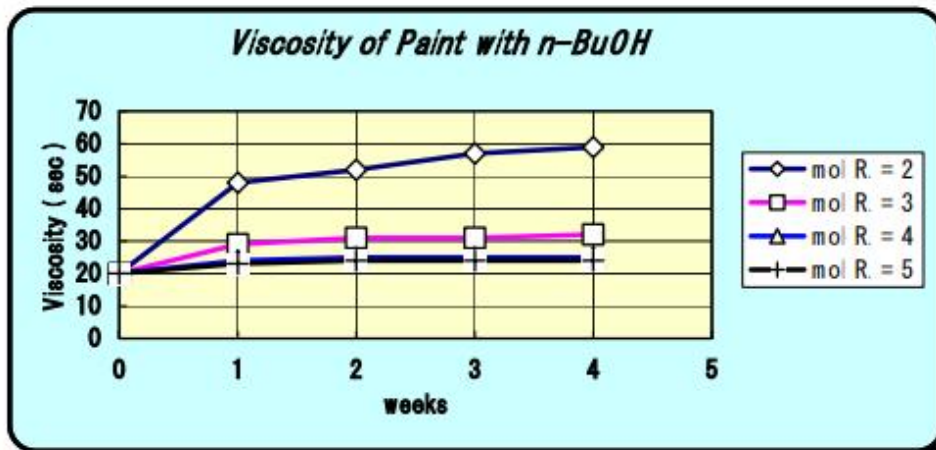
Curing speed of MF-K60X is faster than that of melamine.

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Polyol: polyester (S et al 6306S S-60 of Nuplex OH=2.7%, AV=42mgKOH/g)
 Baking Temp.:140°C

Storage stability of paint using MF-K60X



1. **Formulation** : Polyol : Acrylic Polyol A801
 (manufactured and sold by DIC OHV = 100 mgKOH/g Resin)
 ·Blocked Polyisocyanate : DURANATETM MF-K60X
 ·NCO OH = 1.0
2. **Storage condition** : 40'C under Nitrogen
3. **Measurement of Viscosity** : Ford Cup #4 at 20°C

Storage and Transportation:

STORAGE: It is recommended to store in a dry and cool area with proper ventilation.

Packaging:

200KG/drum Please fasten the packaging cover as soon as possible after original packaging to prevent the mixing of other substances such as moisture and other substances that may affect the performance of the product. Do not inhale dust, avoid skin and mucous membrane contact. Smoking, eating and drinking are prohibited in the workplace. After work, shower and change clothes. Store contaminated clothes separately and reuse them after washing. Maintain good hygiene practices.

E_mail us : info@allhdi.com