

25-1390 (AEKYUNG AH-20900BA) ALIPHATIC POLYISOCYANATE

TECHNICAL DATA SHEET

APPLICATIONS

Automotive refinish and OEM
Heavy duty protective coatings
Polyurethanes requiring lower VOC
Polyurethanes requiring improved weathering

DESCRIPTION

25-1390 is an aliphatic polyisocyanate based on HDI trimer and is supplied at 90% solids in butyl-acetate. Due to its low viscosity, 25-1390 is ideal for formulating high solids systems.

25-1390 can be formulated in clear and pigmented two component urethane systems. These systems will provide excellent weathering, chemical and abrasion resistance. In addition, they will have excellent gloss and color retention. Because 25-1390 is based on HDI trimer, it will usually offer better weathering performance versus biuret based products.

SOLUBILITY AND COMPATIBILITY

25-1390 is completely soluble in xylene, toluene, ethyl acetate and butyl acetate.

25-1390 can be blended with a variety of other aliphatic and aromatic polyisocyanates. It also has good compatibility with many hydroxyl functional polymers such as polyesters, polyacrylates and polyethers.

KEY BENEFITS

Abrasion resistance
Chemical resistance
Weather resistance

TYPICAL PROPERTIES

% Solids	89 - 91
Viscosity @ 25°C (mPa.s)	320 - 435
Color (APHA)	40 maximum
% NCO Content	18.5 - 19.5
% Free Monomer	0.2 maximum
Equivalent Weight (Total Weight)	221
Weight Per Gallon @ 25°C	9.35

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FORMULATION

17-0801 Acrylic Polyol	54.0
25-1390	19.6
TiO ₂	16.0
Solvent	24.0
(Solveso 100/Xylene/Toluene/BA/EA/CA = 10/40/20/10/10/10)	
TiO ₂	PWC 35%
Viscosity (Ford Cup# 4)	13—15 sec

DRY TIMES

Dust Free Time @ 20°C (Minutes)	Clear Varnish	50
	White Enamel	25

FILM PROPERTIES

White enamel. Forced dry at 80°C for 30 minutes. Stand for 7 days. Film thickness of 20-30 μm .

Pencil Hardness	After 1 Day	B
	After 7 Days	H
Adhesion (Crosshatch)		100 / 100
Impact Strength (1/2", 500g, cm)		30
Erichsen (mm)		> 7
Bending (2mm)		Excellent
Chemical Resistance (24 Hours)	5% NaOH	Excellent
	5% H ₂ SO ₄	Excellent
QUV Resistance (Gloss/Yellowing)	Initial	92 / -3.9
	After 1,000 Hours	91 / -3.8

* All data is based on laboratory testing and practical experience. The information is believed to be accurate, however, without obligation.