ETERNAL MATERIALS（MALAYSIA）SDN.BHD.

2009/02/24

Acrylic Polyol Polyurethane Coating

ETERAC 7331-1-XS-70 is a hydroxyl functional acrylic copolymer designed to crosslink at room temperature with polyisocyanate adducts. This resin has been primarily developed to produce two packs system with the following outstanding features.

- Excellent chemical and stain resistance
- Excellent adhesion
- Excellent leveling properties
- High gloss
- Excellent pot life

SPECIFICATION

Appearance	Clear / Clean
Color (APHA@ 25℃)	<50
Viscosity (Gardner 25℃)	Z_3 - Z_5
Solid Content, % (150℃ x 1h x 0.7g)	70 ± 1
Hydroxyl Value (mg KOH/g, solid)	100 ± 5
Acid Value (mg KOH/g, solid)	7.5~11.5
Solvent	Xylol / Butyl acetate

SUGGESTED FORMULATION

I. PU top clear

Part A

ETERAC 7331-1-XS-70	72.0
Cellosolve acetate	6.0
Butyl acetate	4.0
Xylene	15.2
BYK-331(50% in Xylene)	0.5 (Slip Agent)
BYK-066	0.2 (Defoamer)
5% DBTL	0.1
Toluene	2.0
	100.0

Part B

Desmodur N-3390	40.0
Cellosolve acetate	15.0
Butyl acetate	15.0
Xylene	30.0
	100.0

Eormulation Ratio

Part A / Part B = 2.0/1.0

II. PU top (White)

Part A

ETERAC 7331-1-XS-70	57.0
Titanium dioxide (Rtyre)	25.0
Barium sulfate	2.0
Anti-Settling agent (1)	0.4
BYK-066	0.2 (Defoamer)
Cellosolve acetate	2.0
Butyl acetate	1.0
Xylene	5.0
----------Dispersed by three rollmill to 7 hegman----------	
BYK-331 (50% in Xylene)	0.5 (Slip agent)
5% DBTL	0.1
Toluene	2.0
Xylene	4.8
	100.0

Part B

Desmodur N-3390	31.0
Cellosolve acetate	17.0
Butyl acetate	17.0
Xylene	35.0
	100.0

Formulation ratio

Part A / Part B = 2.0 / 1.0

Pigment / Binder = 1.0 / 1.48

Remark :

(1) Anti-Settling Agent

Anti-terra-u (BYK)	5.0
Bentone 38	10.0
Xylene	85.0
	100.0

Mix till turn paste

(2) PU thinner

Xylene	30.0
Toluene	35.0
Solvesso 100	10.0
Butyl acetate	10.0
Cellosolve acetate	15.0
	100.0

TYPICAL PERFORMANCE DATA

I. Clear Enamel : Spray on Cold roll steel treated with . Bonderlite #144
Spray viscosity : Ford Cup #4 18"-22" 25℃
Dry film thickness 30~35μ
Baking 60℃ x 30 mins. and 7 days setting at 25℃

Drying Time :	
Set to touch (min)	24
Tack free (min)	42
Dry hard (min)	110
Hardness (pencil)	H
Gloss (20°/60°)	105/125
Impact (1/2 inch, 1000g)	50 cm
Adhesion	100/100
Resistance to	
Alcohol (25℃/dip/24hrs)	Excellent
Gasoline (25℃/dip/24hrs)	Excellent
MEK (double rub/time)	~60

II. White Enamel : Spray on Cold roll steel treated with Bonderlite #144
Spray viscosity : Ford cup #4 18"-22" 25℃
Dry film thickness 30~35μ
Baking 60℃ x 30 mins. and 7 days setting at 25℃

Drying Time :	
Set to touch (min)	21
Tack free (min)	55
Dry hard (min)	216
Hardness (pencil)	H^+
Gloss (20°/60°)	90/96
Gloss retention	> 90%
Impact (1/2 inch, 1000g)	50cm
Adhesion	100/100
Resistance to	
Alcohol (25℃/dip/24hrs)	Excellent
Gasoline (25℃/dip/24hrs)	Excellent
MEK (double rub/time)	~100
Gloss retention (1000 hrs)	~90%