

ETERNAL MATERIALS CO., LTD.

2008/07/11

Acrylic Polyol Polyurethane Coating

ETERAC 7307-2-S-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
- High gloss
- Excellent film builds and colour retention
- Excellent chemical and acid resistance

SPECIFICATION

Appearance	Clear / Clean
Color (APHA)	<=50
Viscosity (Gardner 25°C)	$Z_{2} - Z_{4}$
Solid Content, % (150°C x 30')	70 ± 1
Hydroxyl Value (mg KOH/g, solid)	132~148
(Hydroxyl Equivalent Weight on solid	400)
Acid Value (mg KOH/g, solid)	8~14
Water Content, %	<=0.1
Solvent	Butyl acetate

SUGGESTED FORMULATION

Part A ETERAC 7307-2-S-70 50.6 BYK 301 (10% in Xylene) 1.0 (leveling Agent) DBTDL (10% in Xylene) 0.2 CHISORB 328 (10% in Xylene) 5.2 CHISORB 328 (10% in Xylene) 3.2 Thinner 39.8 100.0 100.0 Part B Desmodur N-3390 20.3 Thinner 29.7
BYK 301 (10% in Xylene) 1.0 (leveling Agent) DBTDL (10% in Xylene) 0.2 CHISORB 328 (10% in Xylene) 5.2 CHISORB 328 (10% in Xylene) 3.2 Thinner 39.8 100.0 100.0 Part B Desmodur N-3390 20.3 20.3
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Desmodur N-3390 20.3
Thinner 29.7
50.0
Formulation Ratio
Part A / Part B = $1.0/1.0$
NCO/OH = 1.05
II. PU top (White)
Part A
ETERAC 7307-2-S-70 40.0
Titanium dioxide (R-900) 28.0
BYK-301 (10% in Xylene) 1.0 (Leveling agent)
DBTDL (10% in Xylene) 0.2
CHISORB 328 (10% in Xylene) 4.3
CHISORB 328 (10% in Xylene) 2.6
Thinner23.9_
100.0

Part B

Desmodur N-3390	16.0
Thinner	62.0
	78.0

Formulation ratio

Part A / Part B = 1.0 / 1.0 Pigment / Binder = 1.0 / 1.76

Thinner

Xylene	50.0
Butyl acetate	25.0
Solvesso 100	12.5
Propylene glycol monomethyl ether acetate	12.5
	100.0

TYPICAL PERFORMANCE DATA

White Enamel : Spray on Cold roll steel treated with Bonderlite #144 Spray viscosity : Ford cup #4 18"-22" 25°C Dry film thickness 30~35µ Baking 60°C x 30 mins. and 7 days setting at 25°C	
Drying Time :	
Set to touch (min)	12'31"
Tack free (min)	80'50"
Dry hard (min)	120
Hardness (pencil)	Н
Gloss (20°/60°)	91.3/94.2
Impact (1/4 inch, 500g)	50cm
Adhesion	100/100
Resistance to	
5% H2SO4 (25°C/24hrs)	Excellent
5% NaOH (25°C/24hrs)	Excellent
Gasoline (25°C/24hrs)	Excellent
MEK (double rub/time)	~100

The information contained herein is correct to the best of our knowledge. The recommendations or suggestions contained in this bulletin are made without guarantee or representation as to results. We suggest that you evaluate these recommendations and suggestions in your own laboratory prior to use. Our responsibility for claims arising from breach of warranty. negligence. or otherwise is limited to the purchase price of the material.