



Instrumental Polymer Technologies, LLC

Technical Data Sheet

PACAPOL™ A175

APPEARANCE.....	CLEAR LIQUID
MOLECULAR WEIGHT RANGE.....	500-550g/mole
EQUIVALENT WEIGHT.....	170-180g/equivalent
HYDROXYL NUMBER.....	315--330 mgKOH/g
HYDROXYL FUNCTIONALITY.....	3
VISCOSITY (100% SOLIDS AMBIENT).....	50-70 POISE
DENSITY.....	1.15 g/ml (9.57 lb/gal)
SOLUBILITY IN WATER.....	0%
SOLUBILITY IN BUTYL ACETATE.....	COMPLETE
SOLUBILITY IN TOLUENE.....	COMPLETE

Description

PACAPOL™ A175 is an economical polycarbonate polyol which offers the performance advantages of polycarbonate polyols while also yielding polyurethanes with extremely high gloss, flow, hardness and buffability. It was designed as a practical, high performance alternative to acrylic polyols in urethane coatings.

PACAPOL™ A175 has very high abrasion resistance. Unlike most polycarbonate polyols, it forms polyurethane coatings with very high scratch resistance. It does this while maintaining excellent flexibility, impact resistance and crack resistance.

Cycloaliphatic rings along with the hydrolytic stability of its carbonate linkages give PACAPOL™ A175 very high water resistance. Urethane coatings made from this polycarbonate polyol also have excellent adhesion to plastics as well as metals. Polycarbonate polyols generally offer better adhesion than polyesters or acrylic polyols. However, PACAPOL™ A250 has the best adhesion to aluminum and steel, relative to other polyols, our company has tested.

Although the chemical resistance of our PACAPOL™ "A" series is not as high as our PACAPOL™ "B" series, you will find the chemical resistance of PACAPOL™ A175 to be higher than acrylic

polyols and generally like a polyester polyol. PACAPOL™ A175 also offers the highest chemical resistance of the PACAPOL™ "A" series due to its high crosslink density.

Applications

PACAPOL™ A175 can replace an acrylic polyol in a urethane coating and improve its durability, wear resistance and appearance. Take advantage of its scratch and wear resistance in areas where decorative coatings see high wear and tear. But its toughness is not the only advantage. Its high gloss and clarity will offer a characteristic shine to any decorative clear coat or pigmented coating.

The low viscosity and flow of PACAPOL™ A175 make it particularly suitable for very high solids coatings.

The water resistance and adhesion of urethane made from PACAPOL™ A175 make it particularly suitable for applications requiring continuous submersion in water, or in high rain erosion areas.

The unique adhesion qualities of PACAPOL™ A175 make it useful for direct to metal/plastic, basecoats or primerless topcoats.

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