

### ACRYLIC EMULSION

#### INTRODUCTION

VANCRYL® 960 is a very low Tg acrylic polymer for film printing applications in the graphic arts industry. Inks made from this polymer exhibit excellent gloss, adhesion to polyolefins, ice water crinkle resistance, and fine printing characteristics. These properties are needed when converting packaging printing from solvent-based formulations to water-based formulations.

VANCRYL® 960 emulsion is compatible with VANCRYL® 68 pigment dispersions as well as other commonly used dispersion resins. It also exhibits excellent compatibility with additives such as surfactants, adhesion promoters, and waxes.

This polymer can be used as the backbone of printing inks and overprint coatings where various COF or slide angle requirements are needed, from a range of 0.25 to 0.45.

#### KEY PERFORMANCE PROPERTIES

- Excellent wetting of and adhesion to polyolefin films
- Excellent ice water crinkle resistance
- Very good gloss for packaging applications
- Excellent printability
- Extremely low VOC – 0.25% maximum

#### TYPICAL PROPERTIES

Acid number, mg KOH/g	48
Density, lbs/gal	8.7
Flashpoint	Non-combustible
Freeze-thaw stability (5 cycles)	Pass
Grit rating, ppm	< 100
Molecular weight, Mw	> 200000
Non-volatile matter, %	44
pH	8.5
Tg, °C	-39
Tmff, °C	< 0
Viscosity, 25°C, mPa.s	1200
VOC, wt. %	< 0.25

#### STARTING POINT FORMULATION

	%
VANCRYL® 68 <sup>(1)</sup> pigment dispersion	40.0
VANCRYL® 960	50.0
Michem® Emulsion 32535 <sup>(2)</sup>	5.0
Water	4.8
KNOCKDOWN® 155 defoamer <sup>(1)</sup>	0.2

<sup>(1)</sup> Product of allnex

<sup>(2)</sup> Product of Michelman Inc.

The above formulation will perform well on MDPE for bags, etc.