

ACRYLIC EMULSION FOR INKS AND COATINGS

INTRODUCTION

VANCRYL® 927 is a medium Tg acrylic emulsion for the graphic arts industry. Excellent gloss can be obtained by utilizing VANCRYL® 927 in inks and coatings. Its film formation properties coupled with its rapid water release result in very fast drying. It is suitable for both flexographic and gravure printing on paper substrates.

VANCRYL® 927 has excellent compatibility with pigment dispersions and alcohols. Inks formulated with VANCRYL® 927 have good transfer, printability, and resolubility for high quality printing on various paper substrates (including metallized paper) and aluminum foil.

VANCRYL® 927 can also be formulated as a high gloss OPV that will very quickly develop water, oil, and scuff resistance.

KEY PERFORMANCE PROPERTIES

- High gloss and holdout on paper substrates, plus good flexibility
- Excellent adhesion on metallized paper and aluminum foil
- Fast drying rate
- Early development of water, oil and scuff resistance
- Excellent compatibility with pigment dispersions and alcohols

TYPICAL PROPERTIES

Acid number, mg KOH/g	58
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, %	46
pH	8.3
Tg, °C	24
Tmff, °C	19
Viscosity, 25°C, mPa.s	2000

STARTING POINT FORMULATIONS

High Gloss Overprint Varnish	%
VANCRYL® 68 ⁽¹⁾ vehicle (30% Solids)	30.0
Michem® Emulsion 32535 ⁽²⁾	5.0
VANCRYL® 927	60.0
KNOCKDOWN® 155 defoamer	0.2
Water	4.8
pH	8.3
Viscosity (#2 Zahn), s	26
Solids, %	38.5

G/S Cyan Blue Ink Base Grind	%
VANCRYL® 68-S	29.0
G/S Cyan blue pigment	35.0
KNOCKDOWN® 155 ⁽¹⁾ defoamer	0.5
Water	35.5

Finished Ink	%
Base Grind	35.0
VANCRYL® 68-S	12.0
VANCRYL® 927	45.0
Michem® Emulsion 32535	3.0
Water	5.0

pH	8.4
Viscosity (#2 Zahn), s	25
Solids, %	40.6

⁽¹⁾ Product of allnex

⁽²⁾ Product of Michelman Inc.