VANCRYL® 989

Technical Datasheet

ACRYLIC EMULSION

INTRODUCTION

VANCRYL® 989 is a high Tg acrylic emulsion for the graphic arts industry. Excellent gloss and fast drying rates can be obtained by utilizing VANCRYL® 989 in inks and coatings. It is suitable for both flexographic and gravure printing on paper substrates.
VANCRYL® 989 has excellent compatibility with pigment dispersions and alcohols. Inks formulated with this product have good transfer, printability, and resolubility. Because it is a hard polymer, VANCRYL® 989 can also be formulated as a high gloss over print varnish with very good heat, water, oil, and scuff resistance.

KEY PERFORMANCE PROPERTIES

- High gloss and holdout on paper substrates
- Fast drying rate
- Good heat, water, oil, and scuff resistance
- Excellent compatibility with pigment dispersions and alcohols

TYPICAL PROPERTIES

Acid number, mg KOH/g	50
Density, lbs/gal	8.8
Flashpoint	Non-combustible
Freeze-thaw stability (5 cycles)	Pass
Grit rating, ppm	< 100
Molecular weight, Mw	> 200000
Non-volatile matter, %	50
pH	8.6
Tg, °C	84
Tmff, °C	> 70
Viscosity, 25°C, mPa.s	1100
VOC, wt. %	< 0.25

STARTING POINT FORMULATIONS

High Gloss Overprint Varnish	%
VANCRYL® 68[1] vehicle (30% Solids)	32.0
Michem® Emulsion 32535[2]	5.0
VANCRYL® 989	58.0
KNOCKDOWN® 155 defoamer	0.2
Water	4.8
pH	8.3
Viscosity (#2 Zahn), s	28
Solids, %	40.5

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® 989	44.5
Michem® Emulsion 32535	3.5
Water	5.0
pH	8.4
Viscosity (#2 Zahn), s	5
Solids, %	42.5

[1] Product of allnex
[2] Product of Michelman Inc.