VANCRYL® 68

Technical Datasheet

SOLID ACRYLIC RESIN FOR INKS AND COATINGS

INTRODUCTION

VANCRYL® 68 is a solid acrylic resin that provides outstanding pigment wetting along with the viscosity stability needed for aqueous gravure and flexographic inks. The transfer properties and hold-out characteristics of inks prepared with VANCRYL® 68 are excellent.
In coatings, VANCRYL® 68 provides high gloss, scuff resistance, and hardness. VANCRYL® 68 is compatible with most acrylic vehicles, and other vehicles such as maleic resins.
VANCRYL® 68 is effective as a protective colloid in the production of styrene-acrylic copolymer emulsions.

KEY PERFORMANCE PROPERTIES

- Outstanding pigment wetting
- Excellent transfer
- Good hold-out
- Low foam
- High gloss
- Compatible with most vehicles

TYPICAL PROPERTIES

Acid number, mg KOH/g	165
Appearance	Solid flake
Color, Gardner	< 2
Molecular Weight, Mw	20000
Non-volatile matter, %	> 99.0
Softening Point, °C	130
Tg, °C	80
Viscosity, 30% solids ammonium salt solution, mPa.s	2000
Viscosity, 30% solids ethanol solution, mPa.s	550
VOC, wt. %	< 1.0

STARTING POINT FORMULATIONS

Typical Vehicle Formula (30% Solids)	%
VANCRYL® 68 resin	30.0
Aqua ammonia (28%)	7.0
Water	63.0
pH	8.0 - 8.5
Viscosity, mPa.s	1500 – 3000
Appearance	Clear solution

Flexographic Ink Base Grind	%
Phthalo blue pigment	32.0
VANCRYL® 68 vehicle (30% Solids)	32.0
Water	35.0
KNOCKDOWN® 155[1] defoamer	1.0

Finished Ink	%
Base Grind	29.0
VANCRYL® 989 emulsion	58.0
Michem® Emulsion 32535[2]	8.0
Water	4.0
KNOCKDOWN® 155 defoamer	0.7
Monoethanolamine	0.3
pH	8.6
Viscosity (#2 Zahn), s	33

High Gloss Coating	%
VANCRYL® 989 emulsion	60.0
VANCRYL® 68 vehicle (30% Solids)	25.0
Michem® Emulsion 32535	5.0
KNOCKDOWN® 155 defoamer	1.0
Water	9.0
pH	8.5
Viscosity (#2 Zahn), s	30

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