

VANCRYL® 65

Solid Acrylic Resin for Inks and Coatings

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INTRODUCTION

VANCRYL 65 is a medium molecular weight solid acrylic resin that is soluble in alkaline water solutions. Ammonia or other bases may be used as neutralizing agents. Co-solvents such as isopropanol are not required in making the solution, thus facilitating the preparation of low VOC inks and coatings. VANCRYL 65 provides outstanding properties for high-solids gravure inks and waterborne clear overprint varnishes. The lower viscosity characteristics in solution of VANCRYL 65 allow the preparation of high solids inks and coatings, where high gloss and rapid drying are essential. Coatings prepared with VANCRYL 65 have high gloss, scuff resistance, hardness, and excellent resolubility. VANCRYL 65 is compatible with most acrylic and maleic resins.

VANCRYL 65 is also effective as a protective colloid in the production of styrene acrylic copolymer emulsions.

KEY PERFORMANCE PROPERTIES

- Low solution viscosity at higher solids
- Low VOC formulas possible
- Excellent transfer
- Superior holdout on porous substrates
- High gloss
- Low foaming
- Excellent compatibility

TYPICAL PROPERTIES

VALUE

Acid number, mg KOH/g	220
Appearance	Solid pellets
Color, Gardner, solution	<4
Density, lbs/gal	9.5
Molecular weight, M _w	5500
Non-volatile matter, %	>99.0
T _g , °C	99
Viscosity, 35% solids solution, cP	~3200
VOC, wt. %	<1.0

STARTING POINT FORMULATIONS

Rotogravure Ink Base Grind	%
VANCRYL 68-S ⁽¹⁾ (30% solids)*	30.0
Phthalo blue pigment	32.0
Water	35.5
n-Propanol	2.0
KNOCKDOWN® 155 ⁽¹⁾ defoamer	0.5

Finished Ink	%
Base Grind	40.0
VANCRYL 65 (35% solids)	25.0
VANCRYL 989 ⁽¹⁾	30.5
Dimethylethanolamine	0.5
Michem® Emulsion 32535 ⁽²⁾	4.0

pH	8.5
Viscosity (#2 Zahn), sec	35
VOC content, %	1.5

High Gloss Coating	%
VANCRYL 989	60.0
VANCRYL 65 (35% sol)	30.0
Michem Emulsion 32535	5.0
KNOCKDOWN 155 defoamer	0.5
Water	4.5

pH	8.5
Viscosity (#2 Zahn), sec	30
VOC content, %	<1

VANCRYL 65 Solution Preparation (35% Solids)

	%
VANCRYL 65	35
Water	55
Aqua ammonia (28%)	10

*VANCRYL 65 or VANCRYL 68 can be used as grinding agents.

(1) Product of allnex

(2) Product of Michelman Inc.

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