

Vinac® XX Series Emulsions

Last Revised: March 2009

Vinac XX poly(vinyl acetate) homopolymer emulsions are characterized by their high-bond strength, excellent machinability and nontoxic nature. They are storage and chemically stable, have outstanding freeze thaw stability and have fast setting speeds.

The Vinac XX emulsion grades are similar in every respect except for their viscosities. The three viscosity ranges provide flexibility for the adhesive compounder to develop various adhesives with differing solids/viscosity relationships. The choice of viscosity range varies with intended application.

Compounding

All the Vinac XX emulsion grades will accept solutions of partially hydrolyzed poly(vinyl alcohol), but will cream at low finished-adhesive viscosities upon the addition of solutions of fully hydrolyzed poly(vinyl alcohol). All grades accept large amounts of either water-miscible or water-immiscible solvents, and plasticizers. Many other compounding additives are readily accepted including humectants, thickeners, borated poly(vinyl alcohol), fillers, starches and other emulsion bases. All grades coagulate in the presence of borax or related compounds

Applications

Vinac XX emulsions serve as general-purpose bases for adhesive compounds that span a variety of applications.

In packaging, Vinac XX emulsions are particularly suitable for adhesives used in case and carton sealing and forming operations. These emulsions are also widely used in cup adhesives, bag adhesives, tube winding and envelope adhesives. The dried film of these emulsions is somewhat water sensitive and should, therefore, be considered in formulations for easy-clean packaging adhesives. In consumer applications, Vinac XX emulsions may be found in "white glues" sold throughout the U.S. In wood applications, Vinac XX emulsion-based adhesives are used in wood veneering, edge gluing and general-purpose furniture assembly. The Vinac XX grades have the highest wood compression strengths of the commercial high-speed, general-purpose emulsions.

Technical Data Sheet

Typical Emulsion Properties

% Solids ¹	55 ± 1%
Viscosity, cPs ²	Vinac XX210 1,000-1,400 Vinac XX230 2,000-2,600 Vinac XX240 2,900-3,700
pH	4.5-6.0
Polymer Type	Vinyl Acetate
Protective Colloid	PVOH
Mechanical Stability	Excellent
Freeze Thaw Stability	Excellent
Thickening Response	Moderate
Reaction to Borax	Coagulates
Wet Tack	High
Density, lb/gal	9.1

Typical Film Properties

Water Resistance	Low
Adhesion to Glass	High
T _g	35 °C
Film Clarity	Hazy
Dry Tack	None
Flexibility	Poor

¹ Cenco Moisture Balance

² Brookfield Viscometer, Model LVF, @20 RPM

Handling

Vinac® XX emulsions contain ingredients which could be harmful if mishandled. Contact with skin and eyes should be avoided and necessary protective equipment and clothing should be worn.

Ashland maintains Material Safety Data Sheets on all of its products. Material Safety Data Sheets contain health and safety information for your development of appropriate product handling procedures to protect your employees and customers.

Our Material Safety Data Sheets should be read and understood by all of your supervisory personnel and employees before using Ashland products in your facilities.

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