We create chemistry

Acronal® NX 4404

Chemical Nature	**Styrene-acrylate dispersion for use in ASTM C-834 rated and painter's grade caulks.**

Properties

Typical Properties	Solids content	%	ca. 60.0
	pH value		ca. 4.8
	Viscosity at 23^{0}C (Brookfield RV, Spindle #2, at 20 rpm)	cps	ca. 450
Other properties of the dispersion	Density	g/cm^3	approx. 1.04
		lbs/gal	ca 8.7
	Freeze/thaw resistance		not stable
Properties of the film	Glass transition temperature T_g (DSC)	^{0}C	ca. -12
	Elongation @ break (@230C)	%	ca. 2100
	Tensile Strength	psi	ca. 70
	Water absorption (After 24 hours immersion in water)	%	ca 9.3

Compatible with

Acronal NX 4404 is compatible with many other substances commonly used in the formulation of caulks and sealants. It is recommended that any materials to be used with Acronal NX 4404 be evaluated before use to ensure compatibility and formulation stability.

* These typical values should not be interpreted as specifications.

Application

Features

Acronal NX 4404 is used as a binder for waterborne dispersion based ASTM C-834 rated and painter's caulks. Acronal NX 4404 accepts high filler to binder levels, beneficial in formulating low cost compounds.

Acronal NX 4404 produces flexible, low tack films and displays good UV resistance. Note that dispersion viscosity will greatly increase when the pH is raised above 8.0.

Processing

To ensure good compatibility with fillers, the pH of Acronal NX 4404 should be first adjusted to pH 8 with alkali solution. Dispex® AA 4135 dispersing aid can also be used to stabilize the formulation. The viscosity increases substantially when alkali is added to the dispersion so it may be possible to reduce the level of additional thickeners and achieve cost savings.

We recommend adding preservatives to caulks formulated with Acronal NX 4404 to protect them from microbial attack. The suitability of these additives must be verified and monitored in trials.

BASF recommends that customers carry-out their own trials when developing caulks based on Acronal NX 4404. The compatibility of Acronal NX 4404 with typical formulation ingredients, as well formulation performance attributes such as gunnability, freeze-thaw stability and the ability to wet and adhere to different substrates, etc., are all affected by a variety of factors, all of which must be evaluated in trials.

Safety

General The usual safety precautions when handling chemicals must be observed. These include the measures described in Federal, State and Local health and safety regulations, thorough ventilation of the workplace, good skin care and wearing of protective goggles.

Safety Data Sheet All safety information is provided in the Safety Data Sheet for Acronal 4404.

Storage

Please refer to the “Handling and Storage of Polymer Dispersions” brochure.

Important

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