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Acronal® 81 D na

Chemical Nature	**Aqueous acrylate-acrylonitrile copolymer dispersion for the manufacture of flooring adhesives and sealants**

Properties

Typical Properties	Solids content	%	~ 60.0
	Viscosity at 23 °C (Brookfield RV, Spindle #4, at 20 rpm)	cps	~ 2500 – 5500
	pH value		~ 5.0
Other properties of the dispersion	Density	lbs/gal	ca. 8.58
		g/cm³	ca. 1.03
	Mean particle size	µm	ca. 0.4
	Film-forming temperature	°C	<1 min.
	Dispersion type		anionic
	Plasticizer content		none
	Miscibility with water		freely miscible
	Stability to solvents		good
	Freeze/thaw stability		not stable
Properties of the film	Bulk density	g/cm³	ca. 1.05
	Glass transition temperature Tg (DSC)	°C	ca. -46
	Water absorption (After immersion for 24 hours)	%	ca. 20
	Mechanical strength*		
	Tensile strength	psi	ca. 100
	Elongation at break	%	ca. 3000
	Appearance		transparent, slight yellow
	Surface		very tacky
	Flexibility		very flexible
	Resistance to aging		good

* These typical values should not be interpreted as specifications.

Compatible with

Polymer dispersions	Acronal V 275 na, Acronal V 210 na, Styrofan® ND 593, Styronal® ND 656 and most other nonionic and anionic dispersions.
Thickeners	Collacral® VAL; Latekoll® D na, and water-soluble cellulose derivatives.
Plasticizers	Plastilit® 3060
Solvents	Limited compatibility with aliphatic and aromatic hydrocarbons; esters.
Resins	Modified natural resins and hydrocarbon resins. These are usually added as a solution or dispersion.
Fillers	Calcium carbonate, finely ground quartz, microdolomite, fine-grain sand, clay.

Application

Fields of application

Acronal 81 D na is used in the production of construction adhesives, pressure-sensitive adhesives, flooring adhesives and sealants. It is typically used in flooring adhesives for PVC and other floor coverings where superior plasticizer resistance is required. Acronal 81 D na based flooring adhesives can be formulated to be removable, making it attractive for carpet tile and vinyl tile applications.

Acronal 81 D na is used for dispersion-based pressure-sensitive adhesives provided that the adhesive is applied in amounts ranging from 20 - 80 g/m^2, depending on the end use application. Another field of application is in the manufacture of dispersion-based sealants for connection joints and expansion joints with an expansion of up to 15%.

Processing

Acronal 81 D na exhibits self-thickening when neutralized to pH levels above approximately 7.5, resulting in potential thickener cost savings.

We recommend adding a preservative to adhesives and sealants that contain Acronal 81 D na to protect them from microbial attack, particularly if their pH lies in the neutral range. The suitability of such additives must be verified and monitored in trials. Commercially available antifoams are suitable for suppressing foam. The amount required must be determined in trials, though usually 0.05 - 0.2%, expressed in terms of the adhesive, is sufficient.

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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 81 D na.

Storage

Storage should be in accordance with the “Handling and Storage of polymer dispersions” brochure. Technical information regarding the storage of BASF polymer dispersion products is available upon request.

Important

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