We create chemistry

Butofan® NS 222

Used in the manufacture of laminating and pressure-sensitive adhesives

Chemical Nature **Aqueous dispersion of a styrene/butadiene copolymer containing carboxyl groups**

Properties

Typical Properties	Solids content	%	~ 51.0
	pH		~ 8.8
	Viscosity (NAD-011) (Brookfield RV, Spindle #2, at 20 rpm)	mPa s	~ 150 – 450
Other properties of the dispersion	Density	lbs/gal	ca. 8.3
		g/cm³	ca. 1.0
	Average particle size	µm	ca. 0.16
	Bound Styrene	%	ca. 43
	Dispersion type		anionic
	Antioxidant		non-staining
Properties of the film	Density	g/cm³	ca. 0.98
	Glass transition temperature Tg (DSC)	°C	ca. -26
	Mechanical strength*		
	Tensile strength	psi	45
	Elongation at break	%	1800
	Appearance		clear
	Surface		tacky
	Flexibility		high

* These typical values should not be interpreted as specifications.

Compatible with

Polymer dispersions Butofan® NS 144, 166, 208, Acronal® V 210, Acronal A 220, Acronal 3432, Styrofan® ND 593 Compatibility must be tested in each case

Thickeners Rheovis® AS 1420, Rheovis® AS 1125

Resins Commercial resin and hydrocarbon tackifier dispersions. Compatibility must be tested in each case. (See Figure 1)

Tackifier Response

Data produced in Figure 1 compares peel, loop tack, and shear performance of adhesives prepared with 75 parts dry tackifier blended with 100 parts dry polymer. Adhesive formulations were direct coated to polyester film, oven dried, and bonded to stainless steel. Coat weights were approximately one mil dry.

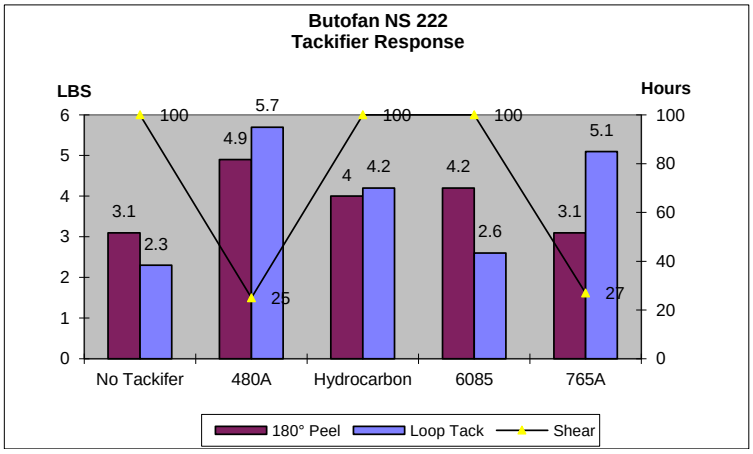

FIGURE 1

Tackifier Supplier Information

- Snowtac™ 480A – Eka Chemical
- Hydrocarbon resin
- Aquatac® 6085 – Arizona Chemical
- Snowtac® 765A – Eka Chemical

Processing

Butofan NS 222 exhibits good chemical and mechanical stability. Adhesives based on Butofan NS 222 can be processed using standard latex compounding and applied by conventional coating methods such as Meyer bar, reverse roll, reverse gravure and slot die.

The addition of about 0.5% wetting agent (e.g., Lumiten® IRA or Pluronic® L-92) can help if problems of poor substrate wettability arise. Commercial defoamers can be used (e.g., Ashland Drewplus® L 108) up to approximately 0.2% on the adhesive.

It is recommended that a preservative be added to adhesives containing Butofan NS 222 to protect from microbial attack. Selection and suitability of such additives must be verified by trials. Recommendations available.

As with other styrene/butadiene latex based adhesives, those based on Butofan NS 222 can contribute to staining of pressure-sensitive paper labels articles after a period of time. In general, this effect can be reduced by priming of the substrate with suitable primers selected, verified and monitored by 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 Butofan NS 222.

Storage

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

Important

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