We create chemistry

Acronal® 4034

Chemical Nature **A non-APEO containing acrylic dispersion used to manufacture pressure-sensitive adhesives for self-adhesives labels and tapes**

Properties

Typical Properties	Solids content	%	~ 60.0
	pH value		~ 7.5
	Viscosity at 23 °C (Brookfield RV, Spindle #3, at 50 rpm)	cps	100 – 350
Further properties of the dispersion	Density	g/cm³	ca. 1.03
	Average particle size	µm	ca. 0,4
	Freeze/thaw resistance		not resistant to freezing
	Dispersion type		anionic
Properties of the film	Bulk density	g/cm³	ca. 1.05
	Glass transition temperature	°C T_g (DSC)	ca. -33
	Water absorption	% (After immersion for 24 hrs)	ca. 5
	Appearance		clear, transparent
	Stability to light		good
	Surface		highly tacky

*These figures should be taken for comparison purposes only. All that can be obtained from it is an idea of the magnitude concerned.

Compatible with

Polymer dispersions	Anionic dispersions and those containing a protective colloid
Thickeners	Rheovis® AS 1420, Rheovis® AS 1125
Plasticizers	Palatinol® AH, C, Loxanol® PL 5060
Resins	Modified and unmodified natural resins; these are added as solutions or dispersions
Pigments	Adhesives can be colored with the water-dispersable Dispers® or Luconyl® preparations

* These typical values should not be interpreted as specifications.

Application

Acronal 4034 forms a film with good immediate tack and peel strength and exhibits low to moderate cohesion. It is used to manufacture pressure-sensitive adhesives for self-adhesive labels and tapes.

In addition to its good adhesive performance, Acronal 4034 is highly transparent, has only very light yellowing after storage at elevated temperatures, and shows good resistance to water absorption. It has exceptional adhesion on films such as PVC and polyester as well as on electrically pre-treated polyolefin film without primer. Acronal 4034 is readily modified with resin dispersions and resin solutions, enabling the grab and peel strength to be increased, especially on non-polar surfaces. This renders Acronal 4034 particularly suitable for permanent adhesive articles such as paper and plastic labels.

Processing

When Acronal 4034 is to be mixed with another dispersion, the pH should be raised to 6 – 8 which increases the mechanical stability.

Adhesives based on Acronal 4034 can be applied to the carrier material with the usual coating systems; e. g., doctor blade, wire, air brush, reverse roll, reverse gravure, curtain and jet applicators. In the event of poor wetting, it is often helpful to add about 0.5 % of a wetting agent such as Lumiten® I-SC.

We recommend adding a preservative to adhesives and coating materials that contain Acronal 4034 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.

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 4034.

Important

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