

# Acronal<sup>®</sup> 4255 X

## Chemical Nature

Aqueous acrylate copolymer dispersion for pressure sensitive adhesives

### Properties

#### Typical Properties

Solids content	%	55 - 57
pH		6.5 – 8.5
Viscosity at 23 °C (Brookfield RV, Spindle #2, at 20 rpm)	cps	100 – 500

#### Properties of the film

Bulk Density	g/cm <sup>3</sup>	ca. 1.04
Glass transition temp	°C	ca. -28
	T <sub>g</sub> (DSC)	
Dispersion Type		Anionic
Freeze / Thaw Stability		Not resistant to freezing

\* The above values should not be taken as specifications.

### Application

#### Features

Acronal 4255 X may be used for the production of pressure sensitive tapes and filmic or foil laminations. It is particularly suitable for applications requiring high flexibility at low temperatures, moderate tack, high shear, and excellent heat/humidity resistance. Acronal 4055X is not recommended for filmic constructions requiring plasticizer resistance.

#### Processing

Adhesives based on Acronal 4255 X may be applied to a carrier material with standard coating system (e.g. mayer rod, roll, gravure, slot die, curtain coating 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 adhesive formulations based on Acronal 4255 X to protect the formulations from microbial attack, particularly if the final formulation pH lies in the neutral range. The suitability of formulation additives must be verified and monitored in trials.

Acronal 4255 X is susceptible to the formation of skins, grit, and coagulum when stored without agitation, or when stored in containers with significant head space or containers without airtight seals.

Manufacturers must conduct their own trials when formulating with Acronal 4255 X, as there are a host of factors in production and processing that cannot be covered exhaustively in a data sheet which can influence compatibility with other additives, wetting, adhesion, and long-term interactions with coated surfaces.

### 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.

## Storage

Acronal 4255 X has a shelf life of 12 months from delivery date, provided it is stored 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.

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