

Acronal® 500 D

Adhesive Raw Materials



Chemical nature

Aqueous dispersion of an acrylate copolymer with carboxyl groups also including vinyl acetate

Technical data

Solids content	approx. 50 %
pH	approx. 3–5
Viscosity EN ISO 3219	approx. 15–35 mPas
Viscosity EN ISO 2555	approx. 45–80 mPas

For detailed information see Specification Data Sheet

Advantages

Acronal 500 D is used in the manufacture of adhesives for bonding PVC film to absorbent substrates such as wood, paper and board. It can be used together with Acronal A 311 for laminating glossy film. Acronal 500 D films are largely immune to plasticizer migration. As the film yielded by the dispersion is soft, it can also be used for the production of flocking adhesives.

A further field of application is in pressure-sensitive adhesives for plasticized PVC laminating films and adhesive tapes.

Acronal 500 D is also used in the manufacture of binders for cork granules, leather fibres, non-woven fabrics etc. and also for coating and laminating textiles, provided that resistance to cleaning is not required.

Applications

If Acronal 500 D is to be mixed with another dispersion, the pH should be in the mildly alkaline range. This is particularly important in the case of mixing with natural rubber latex: Acronal 500 D must be adjusted to pH 8–8.5 with ammonia solution and then stirred into the latex. Proceeding the other way round can result in the mixture coagulating.

The Acronal 500 D polymer can be crosslinked by adding zinc oxide or reactive urea or melamine-formaldehyde resins. Heat alone does not bring about crosslinking.

In the event of poor wetting, it is often helpful to add about 0.5 % of a wetting agent (e.g. Lumiten I-SC).

Commercially available antifoaming agents (e.g. Lumiten E-L) are suitable for suppressing foam. Usually the addition of 0.05–0.2 % of the antifoaming agent in the formulation is sufficient. We recommend adding a preservative to adhesives based on Acronal 500 D to protect them from microbial attack. The suitability of such additives must be verified and monitored in trials. Manufacturers must carefully carry out their own experimentation when developing products based on Acronal 500 D, as there is a host of factors that we cannot cover exhaustively in our trials which can influence compatibility with other components of the adhesives, interaction with the different materials bonded or coated with them, stability in storage etc.

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