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Acronal® 5028

Polymer Dispersions for Construction

Chemical nature

Ammonia-free aqueous dispersion of a copolymer of acrylic acid ester and acrylonitrile. Acronal® 5028 is a non-APEO and non-plasticizer product.

Properties

Physical form

Liquid, dispersion

Technical data
(not supply specification)

Solid content	DIN EN ISO 3251	54.0 – 56.0 %
pH Value	DIN ISO 976	6.5 – 8.5
Viscosity, dynamic	DIN EN ISO 3219 (23 °C, 250 1/s)	40 – 180 mPa.s
Glass transition Temperature (Tg)		~ -55 °C
MFFT	DIN ISO 2115	< 1 °C
Initial melting point[1]		≤ 20 °C

[1] According to Commission Regulation (EU) 2023/2055 of 25 September 2023 amending Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as regards synthetic polymer microparticles.
The initial melting point was determined according to the position paper of the European Polymer Dispersion and Latex Association (EPDLA's position paper on polymer dispersions, redispersible polymer powders made thereof and synthetic polymer microparticles) from December 2024 and the method described therein.

Application

Areas of application

Acronal® 5028 is used mainly to produce highly polymer-modified, cementitious, flexible waterproofing slurries (surface protection, composite waterproofing). Because of its low glass transition temperature, Acronal® 5028 provides waterproofing slurries with crack-bridging properties down to -20 °C.

Processing

Because Acronal® 5028 is made without the use of ammonia, there is no unpleasant odor when it is processed with strongly alkaline mineral binders such as cement, limestone, etc.

If the air voids content increases during processing of Acronal® 5028, we suggest defoaming tests with, for example, 0.3 − 1.0 % FoamStar® PB 2706 in relation to the wet component.

To ensure the crack-bridging properties of mineral waterproofing slurries, the polymer/cement ratio should be between 0.6 and 0.8.

If a sag-resistant consistency is required for the processing rheology of the slurry, we recommend the use of polyurethane-based thickeners like, for example, Rheovis® PU 1216.

To speed up hydraulic formulations with a high proportion of polymer, it may be beneficial to add aluminous cement or calcium formate to the dry component.

Safety

When handling this product, please comply with the advice and information given in the safety data sheet and observe protective and workplace hygiene measures adequate for handling chemicals.

Note

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights, etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. The agreed contractual quality of the product results exclusively from the statements made in the product specification. It is the responsibility of the recipient of our product to ensure that any proprietary rights and existing laws and legislation are observed.

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