REVACRYL™ AE 4522

REVACRYL™ AE 4522 is a specially modified, aqueous dispersion of a styrene-acrylic ester copolymer for waterproofing and tile adhesive applications. The polymer is engineered for excellent wet adhesion.

REVACRYL™ AE 4522 contains an anionic emulsifier system and is free from film forming aids, solvents and plasticizers.

For further information regarding this product please refer to:

Construction Synthomer

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Property	Typical Value	Unit	Method[1]
Solids Content	50	%	ISO 3251
pH Value	7.5		ISO 976
Viscosity (23°C, 100 1/s)	350	mPa*s	ISO 3219
Glass Transition Temperature	22	°C	
Density	1.04	g/cm³	
Mean Particle Size	0.1	µm	
Minimum Film Forming Temperature	18	°C	
Surface Tension	43	mN/m	
Water Absorption (24h)	10	%	
Tensile Strength	9	N/mm²	
Elongation at Break	500	%	

[1] internal method based upon the specified norm

Application Advice

REVACRYL AE 4522 is ideal for use in waterproofing applications, water-resistant tile adhesives and primers. The polymer has been modified to chemically bond to mineral substrates, resulting in very good adhesion even under moist and wet conditions. Important applications are cement-free, ready-for-use dispersion adhesives for tiles which, according to DIN 18156, achieve tensile adhesive strength values of > 0.5 N/mm² after 21 d storage under water. Above the minimum film forming temperature, REVACRYL AE 4522 forms a clear, tack-free, and water-resistant film characterized by good light, ageing and alkali resistance.

REVACRYL AE 4522 has good compatibility with conventional pigments and fillers and has a high filler loading capacity. When lamellar fillers, e.g. kaolin, mica or talcum are used, the compatibility and storage stability may become limited. Combinations of quartz powder and carbonate fillers have proved effective in water resistant tile adhesives. The storage stability of end products should be assessed and may be increased by the addition of appropriate wetting and dispersing agents. Combinations of polyphosphates and dispersing agents such as NUOSPERSE® FX 504, Pigment Dispersant A or DISPEX® N 40 have proven effective. End product viscosity and rheology can be adjusted by the addition of cellulose ethers, copolymers containing acid groups (ROHAGIT® SD 15), polyurethane thickening agents (BORCHIGEL® DP 40, RHEOLATE® FX 1010), COLLACRAL® VL or inorganic thickening agents (BENTONE® EW). If desired the minimum film forming temperature can be lowered by the addition of DOWANOL® grades, DAPRO® FX 511, LUSOLVAN® FBH or TEXANOL®. Aromatic containing white spirits and butyl glycol are suitable, but greater quantities have to be added because they are less effective. Suitable defoaming agents include DAPRO® GBR, AGITAN® 218/281, BYK®-034, DEHYDRAN® G.

REVACRYL AE 4522 is preserved against bacterial and fungal attack. As usual, manufacturers of finished products made with REVACRYL AE 4522 are advised to assess the microbial stability of their products and add appropriate preservatives if necessary.

Shipping and Storage

This product is supplied in road tankers or in non-returnable plastic drums secured by a lid with clamping ring or in non-returnable palletized bulk containers (net volume 1000 L). The product must be protected from frost and exposure to direct sunlight. Storage temperatures between +5 °C and +30 °C are recommended. The product contains in-can preservation to protect it against microbiological attack during transportation. For protection against microbiological contamination during storage stringent plant hygiene is essential. Depending on the storage conditions addition of suitable preservatives may be necessary. Care must be taken that drums and containers are properly closed. During storage, shipping and handling contact with metal surfaces that are not corrosion protected must be avoided. When stored properly, the product has a shelf life of 12 months from the date of delivery.

Product Safety

Before handling, please read the Safety Data Sheet of this product for advice on safety, use and disposal.