ARAKRIL®AK 505

Arakril AK 505 is an APEO and formaldehyde free anionic pure acrylic emulsion.

Specification

	UNIT	VALUE	TEST METHOD
Solid Content 1/2h 150ºC	*%*	*50±1*	*DIN EN ISO 3251*
pH		*8.0-10.0*	*DIN ISO 976*
Viscosity Brookfield RVDV-II	*mPas*	*20 - 400*	*DIN EN ISO 2555*

Additional Data

These data are used solely to describe the product. They are not subject to constant monitoring or part of the specification.

	UNIT	VALUE	TEST METHOD
MFFT	*ºC*	*16±2*	*ISO 2115*
Density	*g/cm³*	*1.06*	*ISO 8962*
Ionic charge		*Anionic*	
Film Appearance		*Clear and Bright*	
Tg	*ºC*	*23±2*	*DIN 53 765(DSC)*

Recommended Application Areas

Interior & Facade Paints
Eggshell Paints
Semigloss Paints
Roof Tile Paints
Textured Paints
Sealers & Primers

Application

Arakril AK 505 is a pure acrylic polymer emulsion designed for a wide variety of applications including eggshell paints, semigloss paints with high scrub resistance and good yellowing resistance.

The pure acrylic backbone contributes to its long term durability and UV resistance for exterior applications. Since Arakril AK 505 forms a good dry film providing very good water and block resistance, it can be also utilized in the formulations of concrete floor paints, sealers and primers.

Processing

Arakril AK 505 dries above 18°C to form a medium hard, glossy and crack-free film with high resistance against water and alkali. The water uptake is low. In general, we would recommend dispersing the pigments, extenders with wetting agents and dispersing agents before adding the polymer dispersion. The usual titanium dioxide and coloured pigments as well as fillers and texturing grains may be used for the formulation of different types of paints. Semi-gloss paints can be formulated either by increasing the total PVC or by post addition of flatting agent to a gloss formulation.

To ensure an adequate storage stability long term storage trials are recommended at any rate, especially when fillers and colured pigments with a large specific surface area are chosen. In addition to the widespread used polyphosphates the salts of low molecular weight polyacrylic acids working as a dispersing agent should also be used to achieve further stability.

Many thickeners are usable to adjust the desired viscosity of the paint and to improve its processability. Very good results are achieved by employing cellulose ethers with retarded swelling and medium to high molecular weight.

The minimum film forming temperature of the dispersion will be reduced by adding sufficient amounts of coalescing agents (and in some cases also plasticizers) which must be done with due care. Water miscible solvents like ethylene glycol improve the frost resistance.

A lot of commercially available defoamers can be included in order to prevent excessive foaming in the paints. Trials must be carried out to determine the most suitable grades and the correct concentration.

Shelf-life and Storage

The dispersion contains some initial preservatives to prevent attact by micro organisms. In order that the product is also sufficiently protected against microbial contamination during further storage in opened drums or storage tanks a suitable preservative should be added despite our preliminary preservation measures. Checks should be carried out to determine their compatibilitiy and efficacy. The tanks and pipework should be kept adequately clean.

Arakril AK 505 should not be stored for longer than 12 months before processing as far as possible, storage should be at a uniform temperature in the region of 5-35ºC. The product should, in principle, be kept away from frost and direct exposure to sunshine. Furthermore it must be ensured that already opened drums or containers are always tightly closed.

The technical data ascertained by our quality control laboratory at the time of product release may vary according to storage time and storage conditions and may deviate from the stated limits.