

# ARAKRIL® K 29

Arakril K 29 is a novel, APEO free, anionic acrylic thickener for coating systems.

## Specification

	UNIT	VALUE	TEST METHOD
<i>Solid Content 1/2h 150°C</i>	%	28±1	DIN EN ISO 3251
<i>pH (when packed)</i>		2.0-4.0	DIN ISO 976
<i>Viscosity Brookfield RVDV-II (1% NH<sub>4</sub><sup>+</sup> salt)</i>	mPas	N/A	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
<i>Colloidal Charge</i>		Anionic	
<i>Appearance</i>		Milky liquid	

## Recommended Application Areas

General Purpose Acrylic Thickener

## Application

Arakril K 29 is an APEO free, acid containing crosslinked acrylic emulsion copolymer with a particularly early and high thickening response in alkali media. When it is diluted with water at a ratio of 1:1 and is neutralized with base, each particle swells greatly. Under these conditions, the emulsion becomes clear and reaches to a high viscosity level.

Solutions of Arakril K 29 effectively suspend pigments, abrasives and other fine particle solids. Unlike conventional thickeners, salts of Arakril K 29 have no flocculating action; thickened lattices remain free of any creaming tendency and aqueous suspensions are free of sedimentation.

Arakril K 29 is a stable emulsion, resisting mechanical shear such as would be encountered during bulk handling or in high-speed mixing equipment. Once neutralized, solutions of Arakril K 29 emulsion shows irreversible behavior *i.e.* it cannot be reverted to emulsion form as a reduction in pH will precipitate the polymer.

Freezing or addition of soluble iron, copper or multivalent cations to the emulsion may cause precipitation of polymer solids.

**In the case of in-situ thickening**, Arakril K 29 may be particularly added to paint and paper coating systems including the more stable lattice and emulsions without dilution or



## Polymer Emulsions

ARGON

### TDS

neutralization. This procedure of in situ thickening has the desirable advantage of avoiding altogether the handling of dilute, viscous solutions.

The Arakril K 29 emulsion should be dispersed quickly and uniformly to avoid localized thickening or gellation. Solubilization and thickening will take place in situ if the system contains enough free alkalinity. If it doesn't, alkali can be added to induce thickening. Final pH should be greater than 7,5. Emulsions or latex compounds thickened by this procedure may show a minor viscosity increase for several hours after adding Arakril K 29.

### Shelf-life and Storage

The dispersion contains some initial preservatives to prevent attack 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 compatibility and efficacy. The tanks and pipework should be kept adequately clean.

Arakril K 29 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 5-35°C. 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.