SYNAQUA® 2080

ARCHITECTURAL COATINGS — ARKEMA COATING RESINS

Product Application details

SYNAQUA® 2080 is a short oil alkyd emulsion designed for use in high performance decorative paints.
SYNAQUA® 2080 is suitable for the formulation of low to zero-VOC wall paints and might be used in the formulation of trim paints.
SYNAQUA® 2080 is formulated without alkylphenolethoxylates, and is ammonia-, solvent- and plasticizer- free.

Performance Benefits

- Extremely low VOC content (no requirement for coalescing solvents)
- High gloss potential
- Low yellowing
- Quick drying time
- Good hardness development
- Good application characteristics

Polymer Type

- Alkyd Emulsion

Sales Specifications

Solid Content at 125°C, % (ISO 3251)	49 - 51
pH (ISO 976)	6.0 - 8.0
Viscosity at 23°C, mPa.s (Brookfield DVE, spindle1, 10rpm) (ISO 2555)	300 max

Other Characteristics[1]

Appearance	White milky liquid
Volatile	Water
Density / Specific Gravity at 23°C, g/ml (ISO 2811)	1.07
Type of fatty acid	Linoleic rich
Fatty Acid content, %	40
Average Particle size, nm (ISO 13321)	300 max

1 The data provided for these properties are typical values, intended only as guides, and should not be construed as sales specifications

Formulation Guidelines

DRIERS
It is recommended to use driers that have been especially developed for water based coatings. A suitable drier for SYNAQUA® 2080 can be the use of a plurimetallic drier, for exp. Additol® VXW 6206 (1) at 1.5% on resin solids or the use of 0.1-0.15% of cobalt alone on resin solids. Co-free driers such as BORCHI® OXY - Coat 1101 (2) at 0.5% on resin solids can also be used.
Unlike solvent-based alkyds no antiskinning agent is required when formulating with SYNAQUA® 2080.

RHEOLOGY
Rheology and viscosity can be controlled by using associative thickeners such as HEUR thickeners, e.g. Coapur™ XS 22 (3), Coapur™ 830 W (3), hydrophobically modified polyether thickeners, e.g. Aquaflow® NHS 300 (4), Aquaflow® NLS 205 (4).

COMPATIBILITY
SYNAQUA® 2080 may be used in combination with (styrene-)acrylic emulsions. However, the compatibility has to be carefully checked in each system.

OTHER ADDITIVES
Defoamers such as Byk®-022 (5), Byk®-028, Byk®-093 (5), Surfynol® MD20 (6), Surfynol® DF-58 (6), FoamStar® ST 2438 (7), Tego® Airex 902W (8) can be used without adversely affecting paint performance.

SYNAQUA®

The correct choice of the dispersing agent is essential to ensure the maximum performance from the alkyd emulsion. Dispersing agents such as Coadis™ BR 85 (3), for example or Disperbyk®-190 (5) can be used.
It is not recommended to use SYNAQUA® 2080 in the millbase.

Notes: (1) Allnex, (2) OMG Borcher GmbH, (3) Coatex, (4) Ashland Specialty Ingredients, (5) Byk, (6) Air Products, (7) BASF, (8) Evonik Tego Chemie GmbH

Product Safety

Please refer to the corresponding Safety Data Sheet.

Storage & Handling

SYNAQUA® 2080 should be stored indoors in the original, unopened and undamaged container, in a dry place at storage temperatures between 5°C and 30°C. Exposure to direct sunlight should be avoided.
The product is protected to prevent any microbial deterioration during normal conditions of storage but care should be taken to avoid accidental contamination during subsequent handling and processing.
In the above mentioned storage conditions the shelf life of the resin will be 6 months from the shipping date

Arkema Coating Resins
420, rue d'Estienne d'Orves
92705 Colombes Cedex - France
arkema.com - **arkemacoatingresins.com**