

SYNAQUA® 4856

ARCHITECTURAL COATINGS

(FORMERLY E 20856)

ARKEMA COATING RESINS

Product Application details

SYNAQUA® 4856 is a highly bio-based alkyd emulsion. It is particularly dedicated for the formulation of low VOC and low emissive interior wall paints from matte to glossy. SYNAQUA® 4856 offers a good wet scrub resistance, a good hardness and a high gloss potential. SYNAQUA® 4856 is formulated without alkylphenolethoxylates, and is ammonia- and plasticiser-free.

Performance Benefits

- High gloss potential
- Hardness development
- Low yellowing
- Contributes to low VOC and low emission coatings

Polymer Type

- Alkyd Emulsion

Sales Specifications

Solid Content at 125°C, % (ISO 3251)	49 - 51
pH (ISO 976)	7.5 - 9.5
Viscosity at 23°C, mPa.s (Brookfield DV-II+) (ISO 3219)	500 max

Other Characteristics¹

Appearance	White milky liquid
Volatile	Water
Density / Specific Gravity at 23°C, g/ml (ISO 2811)	1.05
Bio-based carbon on total carbon, % (ASTM D6866-12)	> 97

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 cobalt free driers that have been especially developed for water based coatings such as BORCHI® OXY - Coat 1101 (1) at 0.5 to 1.5% on resin solids. SYNAQUA® 4856 does not require an antiskinning agent in the formulation.

RHEOLOGY

Rheology and viscosity can be controlled by using associative thickeners such as HEUR thickeners, e.g. Coapur™ 2025 (2), Coapur™ 830 W (2), hydrophobically modified polyether thickeners, e.g. Aquaflow® NHS 300 (3), Aquaflow® NLS 205 (3)

COMPATIBILITY

SYNAQUA® 4856 may be used in combination with (styrene-)acrylic or standard alkyd emulsion emulsions. However, the compatibility has to be carefully checked in each system.

OTHER ADDITIVES

Defoamers such as Byk®-022 (4), Byk®-028 (4) can be used without adversely affecting the paint performance.

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 (2), Coadis™ 790 (2) and Disperbyk®-190 (4) can be used.

It is not recommended to use SYNAQUA® 4856 in the millbase.

Notes: (1) OMG Borchert GmbH, (2) Coatex, (3) Ashland Specialty Ingredients, (4) Byk

SYNAQUA®

Product Safety

Please refer to the corresponding Safety Data Sheet.

Storage & Handling

SYNAQUA® 4856 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

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