

TECHNICAL DATA SHEET

SYNAQUA® 4856*Alkyd Emulsion***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.

SALES SPECIFICATIONS

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

OTHER CHARACTERISTICS¹

	CHARACTERISTICS	METHODS
Appearance	White milky liquid	
Solvent	Water	
Density (20°C)	1.05 g/ml	ISO 2811
Bio-based carbon on total carbon	> 97 %	ASTM D-6866-12

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

MARKETS**Composites & Advanced Materials**

- Thermoplastics
 - Pc, Compound & Masterbatch

Coatings & Inks

- Architectural Coating
 - Interior Wall
 - Trim

PERFORMANCE BENEFITS

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

SYNAQUA® 4856

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 formulating.

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 Borcher GmbH, ⁽²⁾ Coatex, ⁽³⁾ Ashland Specialty Ingredients, ⁽⁴⁾ Byk

PRODUCT SAFETY

Please refer to the corresponding Safety Data Sheet.

STORAGE AND 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 from the shipping date.

Shelf Life (Months): 6