

TYPE

Self-crosslinking, APEO and ADH-free, waterborne acrylic copolymer emulsion

FORM OF DELIVERY (f.o.d.)

43 % in water

DEVELOPMENT PRODUCT

This product is serving for trial purposes only. Deviations which might occur during transfer into manufacturing in a commercial scale are possible and do not constitute any material defect.

NEUTRALIZATION AGENT

0.15 % ammonia, as salt

TENTATIVE PRODUCT DATA

Determined per batch:

Dynamic Viscosity DIN EN ISO 3219		
dynamic viscosity (100 1/s; 23 °C)	[mPa.s]	10 - 300
pH-Value DIN ISO 976		
pH-value (10 %)		7,6 - 8,8
Non-Volatile Matter DIN 55671		
non-volatile matter (150 °C; 5 min)	[%]	41,5 - 44,5

Not continually determined:

Colour / Appearance VLN 250		
colour		yellowish
appearance		opaque

Density (Liquids) DIN EN ISO 2811-2		
density approx. (20 °C)	[g/cm³]	1,03

Minimum Temperature of Film Formation DIN ISO 2115		
minimum temp. of film form. approx.	[°C]	37

Flash Point (CCCFP) ASTM D 6450		
flash point	[°C]	> 94

SPECIAL PROPERTIES AND USE

SETAQUA DTM 6850 is a self-crosslinking, APEO and ADH-free, water borne acrylic copolymer emulsion especially designed for direct-to-metal applications.

For proper film formation at room temperature this unique, hydrophobic acrylic emulsion requires the addition of hydrophobic coalescing agents to enable perfect film formation, good direct-to-metal adhesion and corrosion resistance performance. The use of hydrophilic coalescing agents in combination with SETAQUA DTM 6850 is not recommended.

Dispersing agent ADDITOL® XW 6588 is a perfect synergist in combination with SETAQUA DTM 6850 for the preparation of best-in-class DTM protective coatings. SETAQUA DTM 6850 requires the use of flash-rust inhibitors for steel substrates. As chemical nature and concentration of flash rust inhibitor systems may significantly influence dry-wet adhesion properties on metals, a careful selection must be made in this respect. Suggested guiding formulations are available on request.

Advantages:

- VOC-free binder
- shear stable
- excellent corrosion resistance performance
- high and stable gloss in salt spray and humidity test
- no need for anti-corrosion pigments or organic adhesion promoter / anti-corrosion additives
- broad adhesion spectrum on various substrates including metals, CED coated metals, plastics (PS, PVC, PMMA), wood and composite materials (HPL)
- good mechanical properties
- outstanding early water resistance
- good blocking resistance, high hardness
- very good chemical spot test resistance
- suitable for high pigment loading
- fast drying

COMPATIBILITY

In general SETAQUA DTM 6850 has good compatibility with other anionic and non-ionic WB binders but performance and stability needs to be tested very carefully, especially with respect to corrosion resistance.

SETAQUA DTM 6850 is compatible with a wide range of anti-corrosion pigments but stability in the final formulation needs to be tested very carefully.

STORAGE

At temperatures up to 40 °C storage stability packed in original containers amounts to at least 365 days.

It is important to protect SETAQUA DTM 6850 from freezing; at low temperatures it should be stored under "keep from freezing" conditions.