

**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<br>(100 1/s; 23 °C) | [mPa.s] | 10 - 300 |
|---------------------------------------|---------|----------|

**pH-Value DIN ISO 976**

|                    |  |           |
|--------------------|--|-----------|
| pH-value<br>(10 %) |  | 7,6 - 8,8 |
|--------------------|--|-----------|

**Non-Volatile Matter DIN 55671**

|  |     |             |
|--|-----|-------------|
| non-volatile matter<br>(150 °C; 5 min) | [%] | 41,5 - 44,5 |
|--|-----|-------------|

**Not continually determined:**

**Colour / Appearance VLN 250**

|                      |  |                     |
|----------------------|--|---------------------|
| colour<br>appearance |  | yellowish<br>opaque |
|----------------------|--|---------------------|

**Density (Liquids) DIN EN ISO 2811-2**

|                               |                      |      |
|-------------------------------|----------------------|------|
| density<br>approx.<br>(20 °C) | [g/cm <sup>3</sup> ] | 1,03 |
|-------------------------------|----------------------|------|

**Minimum Temperature of Film Formation DIN ISO 2115**

|  |      |    |
|--|------|----|
| minimum temp. of film form.<br>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.