



M.1630.AV

Adhesion and water absorption

With extremely low water absorption of less than 4 % and optimum adhesion to nearly all substrates, this water-based resin is one of a kind. In corrosion protection applications, M.1630.AV gives absolute unique properties, especially regarding adhesion and water resistance.

Unique properties

- Very high water and weather resistance
- Maximal water absorption of the film is <4 %
- Very good adhesion for almost all substrates
- Even after days of water submersion testing, the film stays transparent
- Good resistance to yellowing
- Suitable for interior and exterior applications

Environment-friendly

- Can be formulated with less than 3 % solvent
- Contains neither VOC nor APEO
- Not EUH 208 labelled

Typical applications

- Anticorrosive primers with exceptional good early water resistance
- Plastic primers with a wide adhesion profile and very good results at the constant climate test
- Use in primers for difficult substrates such as non-ferrous metals, plastic, glass, etc.

Technical properties

Resin base	Acrylate / VeoVa
Solids content	44–46 %
Density	approx. 1 g/ml at 20 °C
Stabilizer system	anionic
Viscosity	300–1000 mPa·s at 20 °C
pH-value	7.0–8.0
Particle size	100 nm
MFFT	20 °C
Frost resistance	no
Water absorption	<4 %
Tensile strength at break	4 N/mm ²
Elongation at break	300 %
Glass transition temp. (Tg)	19 °C

White anti-corrosion primer based on M.1630.AV
Starting formulation 1630-KG03-08

	Raw materials	Quantity	Function	Supplier
1	Demineralised water	110.0		
2	Drewplus TS-4385	1.0	Defoamer	Ashland Inc
3	Nuosperse W-22	8.0	Wetting and dispersing agent	Elementis GmbH
4	Dowanol DPM	20.0	Film forming agents	Dow Chemical Company
5	M.1630.AV	250.0	Resin	VANORA AG
6	Kronos 2190	90.0	Pigment	Kronos International Inc.
7	Finntalc M05SL	48.0	Filler	Mondo Minerals
8	Heucophos ZPO	70.0	Anticorrosion additive	Heubach GmbH
9	Zinc white Harzsiegel	28.0	Anticorrosion additive	NORZINCO GmbH
10	Aerosil R 972	2.0	Anti-setting agent	Evonik Industries AG
	<i>Pearl mill till grain fineness <15 µm</i>			
11	CHE Coat CI L8NF	2.0	Flash-rust inhibitor	Laboratoires LABEMA
12	CHE Coat CI L8AF	2.0	Flash-rust inhibitor	Laboratoires LABEMA
13	M.1630.AV	364.0	Resin	VANORA AG
14	Tafigel PUR 41	5.0	Thickener	Münzing Chemie GmbH
	<i>With 25 % ammonia, adjust to pH 8.5</i>			
		1000.0		

Mixture instruction

- Pos. 1 Submit water
 Pos. 2-10 Add each raw material separately under dissolver
 Following with pearl mill till grain fineness < 15 µm (Temp. max. 50 °C)
 Pos. 11-14 Add during agitation, stir for 5 minutes at low speed
 Following with 25 % ammonia, adjust to pH 8.5

Technical data

Viscosity Brookfield at approx. 20°C (Spindle 6, 100UpM)	3700 mPa.s
Pigment-volume-concentration (PVC)	20 %
Gloss 60°	16 GU
pH	8.5