Industrial Coatings Resins

HYBRIDUR® 878 Polymer Dispersion

DESCRIPTION

Hybridur 878 polymer dispersion is an NMP-free, anionically-stabilized aliphatic urethane-acrylic hybrid polymer dispersion. Hybridur 878 exhibits rapid dry, excellent wetting, adhesion, and barrier properties when used in air-dried coatings. Further performance improvements can be obtained employing heat-cure or use of additional crosslinkers. Hybridur 878 provides typical polyurethane dispersion performance at improved economics.

Hybridur 878 can be used for both clear and pigmented coating applications on a variety of substrates. Performance of Hybridur 878 based coatings is comparable to NMP containing grades such as Hybridur 580. Hybridur 878 provides films with higher glass transition temperature (T_g) when compared to Hybridur 870.

ADVANTAGES

- NMP free and solvent free for maximum formulation latitude
- Excellent wetting and adhesion
- Excellent chemical resistance and UV durability

APPLICATIONS

- Primer and topcoats on variety of substrates
- Airless and conventional spray and roller applied coatings
- Heat-cured coatings with excellent blocking resistance

SHELF LIFE

At least 18 months from the date of manufacture in the original sealed container stored undercover at ambient temperature away from excessive heat and humidity.

STORAGE AND HANDLING

Refer to the Safety Data Sheet for Hybridur 878 polymer dispersion.

TYPICAL PROPERTIES

Appearance	Milky White Dispersion
Solids [%]	39-41
Viscosity @ 25°C, [mPa.s]	50-150
pH @ 21°C	7.5-9.0
Acid Number [mgKOH/g] (calculated)	14.5
Specific Gravity @ 21°C, [g/ml]	1.03
Particle Size	Colloidal
Particle Charge	Anionic
Stabilising Amine	TEA

TYPICAL HANDLING PROPERTIES

MFFT[4] [°C]	62
Solvent [%]	< 0.1
VOC [g/l] (TEA)	11
Typical cure schedule	2- 7 days

TYPICAL PERFORMANCE PROPERTIES

Gloss[2] 60°	92
Persoz Hardness[3], 25°C [s]	230
Tensile Strength[5], [MPa]	30.4
Tensile Modulus[5], [GPa]	1.1
Tensile Elongation[5] [%]	8
Direct Impact Resistance[6] [kg.cm]	> 185
Reverse Impact Resistance[6] [kg.cm]	> 185
Double Rubs[7] [Film Break Through]	
Isopropyl alcohol	105
2-butanone (MEK)	> 200

Footnotes:
(1) For details see formulation H878 CT01
(2) ASTM D 523
(3) ASTM D 4366
(4) ASTM D 2354 (55 µm DFT)
(5) ASTM D 638 (150 µm DFT)
(6) ASTM D 2794 (60 µm DFT, S36i steel panels)
(7) ASTM D 4752

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