

**HYBRIDUR<sup>®</sup> 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.

**TYPICAL PROPERTIES**

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

**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 HANDLING PROPERTIES

Property	Value	Unit	Method
MFFT	62	°C	ASTM D 2354 (55 µm DFT)
Solvent	< 0.1	%	
VOC	11	g/l	TEA
Typical cure schedule	2 - 7	days	

## TYPICAL PERFORMANCE PROPERTIES

Property	Value	Unit	Method
Gloss 60°	92		ASTM D 523
PersoZ Hardness, 25°C	230	s	ASTM D 4366
Tensile Strength	30.4	MPa	ASTM D 638 (150 µm DFT)
Tensile Modulus	1.1	GPa	ASTM D 638 (150 µm DFT)
Tensile Elongation	8	%	ASTM D 638 (150 µm DFT)
Direct Impact Resistance	> 185	kg.cm	ASTM D 2794 (60 µm DFT, S36i steel panels)
Reverse Impact Resistance	> 185	kg.cm	ASTM D 2794 (60 µm DFT, S36i steel panels)
Double Rubs		Film Break Through	
Isopropyl alcohol	105		ASTM D 4752
2-butanone (MEK)	> 200		ASTM D 4752

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