

HYBRIDUR® for Interior Wood Coatings

How do you transform your interior wood coatings formulations from “good enough” to “high performance”? The answer is HYBRIDUR® waterborne acrylic urethane dispersions from Evonik.

Hybridur® is a product line of water-based urethane-acrylic hybrid dispersions from Evonik Corporation. These innovative materials have been found to exhibit excellent wetting, adhesion, barrier and film properties when used in air dry, baked or crosslinked high-performance coatings on a wide variety of application. The necessary aesthetics, hardness, elasticity, abrasion resistance, and chemical resistance allows for application over interior wood.

APPLICATIONS
INCLUDE:
PARQUET FLOORING
FURNITURE
WINDOW FRAMES
TRIM & MOLDING



PREMIUM PERFORMANCE

- Excellent weathering resistance
- High flexibility
- High chemical and abrasion resistance

IMPROVED PRODUCTIVITY

- Fast return-to-service
- Worry-free application
- Ease of handling
- Cost efficient

ECO-FRIENDLY, USER FRIENDLY

- Waterborne
- Isocyanate free
- Low-VOC

PROPERTIES AND SELECTION GUIDE FOR INDOOR WOOD APPLICATION

	Solids (%)	Viscosity Brookfield (cP)	pH	Freeze-Thaw Stability Cycles	Mechanical Stability	Hot Box Stability	Density (lb/gal)	Interior Wood
Hybridur® 570	40 - 42	50 - 150	7.5 - 8.5	10 +	Good	Good	8.6	+
Hybridur® 580	40 - 42	50 - 150	7.5 - 8.5	10 +	Good	Good	8.7	++
Hybridur® 870	40	< 150	7.5 - 9.0	5	Good	Good	8.7	+
Hybridur® 878	40	< 150	7.5 - 8.5	5	Good	Good	8.7	++



The starting point formulation and performance properties for a clear coating using Hybridur® 580 can be seen below. To formulate a low VOC coating, it is recommended to use Hybridur® 878. Slight modifications will be needed in the starting point formulation to achieve an excellent finish. Both products allows for clear and pigmented high gloss and matte finish.

STARTING POINT FORMULATION HYBRIDUR® 580 CLEAR COATING FOR INTERIOR WOOD

Formulation – HY580CW01

MATERIAL	POUNDS	GALLONS	SUPPLIER
HYBRIDUR® 580 Dispersion	671.23	77.16	Evonik
BYK®-024 (Defoamer)	2.14	0.25	Byk-Chemie
ARCOSOLV® TPM (Solvent)	47.03	5.88	Lyondell
ARCOSOLV® DPNB (Solvent)	47.03	6.19	Lyondell
BYK®-346 (Surfactant)	4.28	0.51	Byk-Chemie
TAFIGEL® PUR 50 Thickener	4.28	0.53	King Industries
Water	79.09	9.48	
Total	855.08	100.00	

Formulation Characteristics

The following are typical properties* only and are not intended to be specifications.

Weight Solids, %	34.1	PVC, %	0
Volume Solids, %	31.8	VOC, lb/gal (g/l)	2.86 (343)

* Properties reported are based on theoretical calculations.

Typical Coating Performance Properties

The following are typical properties only and are not intended to be specifications.

Gloss, 60° (ASTM D 523)		Chemical Spot Tests, 1 hour exposure (ASTM D 1308)	
Immersion (ASTM D 870)		10% H ₂ SO ₄	no effect
Water (24 hr @ 70°F)	no effect	10% NaOH	no effect
Abrasion, mg loss (ASTM D 1044)		Household Ammonia	no effect
(Taber, 1000 g, 1000 cycles, CS17)	64	Vinegar	no effect
Immersion (ASTM D 870)		Olive Oil	no effect
Water (24 hr @ 70°F)	no effect	Fantastic Cleaner	no effect
IDouble Rubs (ASTM D 4752)		Household Bleach	no effect
MEK	<200		

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