

WITCOBOND[®] 457-66

An aliphatic hydroxyl-functional polyurethane dispersion for Heat Cure Enamels

WITCOBOND[®] 457-66 is a water-based, NMP-free, hydroxyl functional anionic polyurethane dispersion that will produce high clarity, high performance protective topcoat finishes for maintenance coating, concrete coatings and two-pack polyurethane primers and top coats for plastics. Excellent performance properties can be achieved after cross-linked with water-borne blocked isocyanate.

Typical Dispersion Properties	
Solids Content (%)	29 - 31
pH at 25°C	7 - 9
Viscosity at 25°C (cps)	10 - 200
Appearance	Semi-colloidal
Polyurethane Dispersion Type	Aliphatic, polyether, anionic
Co-solvent: % / Type	0
Specific Gravity at 25°C	1.04
T _g / Minimum Film-Forming Temperature (°C)	- / 0
OH Content based on 100%Solids	~3.0%

Typical Guide Formulation Using Water-borne Blocked Isocyanate		
	Parts	Supplier
Part A:		
WITCOBOND [®] 457-66	100	Lanxess
Foamex [®] 810	0.13	Tego Chemie
Byk [®] 346	0.5	BYK Chemie
Part B:		
Trixene [®] Aqua BI 201	67*	Lanxess
Water	As needed to adjust viscosity	

*Isocyanate addition based at 150% index.

Coating applied onto Aluminum 'Q' plate using a 60 µm Meyer bar and curing carried out at 140°C for 30 minutes.

Test Type	Results
Konig Hardness, seconds	168
60° Gloss	93
MEK Double Rubs	23
Alcohol Double Rubs	36
Pencil Hardness	3H
Adhesion	100%





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Unless specified to the contrary, the values given have been established on standardized test specimens at room temperature. The figures should be regarded as guide values only and not as binding minimum values. Kindly note that the results refer exclusively to the specimens tested. Under certain conditions, the test results established can be affected to a considerable extent by the processing conditions and manufacturing process.

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