

Resistance of RapidShield[™] 1001 WB Matte Topcoat Against Chemicals

Floors coated with RapidShield[™] have good chemical resistance. RapidShield[™] performs very well with most acid or neutral chemicals. Strong alkaline chemicals may cause some performance issues.

During simulation tests, the test samples were applied immediately after curing RapidShield[™] 1001 WB Matte Topcoat and covered with a 100 mm diameter watch glass to minimize evaporation of the test material. After 24 hours, half of the areas under the watch glass were wiped clean and observations recorded. After seven days, the remainder of the test material was wiped off and observations were recorded.

The following tables give an indication of chemical resistance.

Chemical	After 24 Hours	After 7 Days
Acids, Inorganic		
H ₃ PO ₄ Phosphoric Acid, 98%	F	F
H ₃ PO ₄ Phosphoric Acid, 50%	Р	Р
H ₃ PO ₄ Phosphoric Acid, 10%	Р	Р
H ₂ SO ₄ Sulfuric Acid, 85%	F	F
H ₂ SO ₄ Sulfuric Acid, 50%	Р	D
H ₂ SO ₄ Sulfuric Acid, 10%	Р	Р
HCL Hydrochloric Acid, 37%	Р	D
Battery Acid	Р	Р
Acids, Organic		
Glacial Acetic	D/DS	D/DS
Citric Acid, 10%	Р	Р
Acetic Acid, 10%	Р	Р
Vinegar (Acetic Acid)	Р	Р
Alkalines		
1 N NaOH Sodium Hydroxide	S/DS	S/DS
NaOH Sodium Hydroxide, 50%	Р	D
NaOH Sodium Hydroxide, 29%	Р	Р
KOH Potassium Hydroxide, 50%	D	F
KOH Potassium Hydroxide, 10%	D	F

Key to observations:

P: Pass - no indication of adhesion loss, change in color, reduction in gloss or reduction in hardness

D: Dull - Reduced GlossDS: Discolor - StainedF: Fail - Complete FailureS: Soften - Weakened Film

Chemical	After 24 Hours	After 7 Days
Solvents (Alcohols)		
Ethanol	Р	Р
Ethylene Glycol	Р	Р
Propylene Glycol	Р	Р
Isopropyl Alcohol	Р	Р
Methanol	Р	Р
Solvents (Aliphatic)		
Lactone Spirits	Р	Р
VM&P Naptha	Р	Р
Gasoline 87 Octane	Р	Р
Mineral Spirits	Р	Р
Solvents (Aromatic)		
Xylene	Р	Р
Solvents (Ketones)		
Acetone	Р	Р
Methyl Ethyl Ketone (MEK)	Р	Р
Methyl IsoButyl Ketone (MIBK)	Р	Р





Indications of Chemical Resistance Continued

Chemical	After 24 Hours	After 7 Days		
Industrial and Residential Chemicals				
10W40 Motor Oil	Р	Р		
.1 N Sodium Thiosulfate	Р	Р		
DOP	Р	Р		
Dot 4 Break Fluid	Р	Р		
Power Steering Fluid	Р	Р		
Triethanol Amine	Р	Р		
Zerex Antifreeze	Р	Р		
Copper Sulfate	D	D		
10% Ammonium Chloride	Р	Р		
Sodium Sulfide	Р	Р		
Gear oil	Р	Р		
Hydraulic oil	Р	Р		
Transmission Fluid	Р	Р		
Hydrogen Peroxide	Р	Р		
MEK-Peroxide	Р	Р		
Aircraft Chemicals				
Skydrol 5	Р	Р		
Skydrol 500-B4	Р	Р		
Skydrol LD-4	Р	Р		
Jet Fuel JP-5	Р	Р		
Industrial and Residential Cleaners				
Murphy's Oil Soap	Р	Р		
ZEP Glass Cleaner	Р	Р		
Borax Solution	Р	Р		
Krud Kleaner	Р	Р		
5% tide Soap	Р	Р		
ZEP Formula 50	Р	Р		
Chlorox Bleach	Р	Р		
Red Giant 500 Cleaner	Р	Р		
Oxiclean Solution	Р	Р		
QUAKER FORMULA™ 409	Р	Р		
TSP Cleaner Solution	Р	Р		
CLR Cleaner	Р	Р		
lodine	DS	DS		
KEMIKO® 2451	Р	Р		

Chemical	After 24 Hours	After 7 Days		
KCMA and Concrete Countertop Reagents				
Mustard	Р	Р		
Ketchup	Р	Р		
Tapatio Hot Sauce	Р	Р		
100 proof Alcohol	Р	Р		
Coffee	Р	Р		
Grape Juice	Р	Р		
Orange Juice	Р	Р		
Lemon Juice	Р	Р		
Olive Oil	Р	Р		
Vinegar	Р	Р		
Red Wine	Р	Р		
Vegetable Oil	Р	Р		
Blood	Р	Р		
Urine	Р	Р		

For any questions or concerns, please contact your local RapidShield $^{\text{TM}}$ representative.

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F: Fail - Complete Failure

S: Soften - Weakened Film

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