

HIGH WEAR ULTRA

ENVIRONMENTALLY FRIENDLY URETHANE COATING

CHEMICAL RESISTANCE GUIDE

The following Chemical Resistance Guide will aid in determining the effect of various chemicals to Valspar's **HIGH WEAR ULTRA**. Results are based on ASTM D-1380 procedure. Two samples were prepared based on a Clear and a color base mixed with UR-4 Light Gray Color Add. Each system was mixed and applied to a panel sealed with Valspar's Primer in accordance to Valspar's standard specifications. The coatings were allowed to cure for a minimum of 7 days @ 77 °F prior to testing. A rating system for this guide is as follows:

Film Integrity

1. Unaffected
2. Affected but area usable after drying
3. Partially Destroyed in contacted area
4. Contacted area destroyed

Staining

- | | |
|-------------------------------|---|
| A. Unaffected | G. Stained but removed by soap and water |
| B. Brown Stain | H. Stained but removed with xylene or abrasive cleaner |
| C. White Stain | I. Loss of Gloss |
| D. Color Lightened | J. Green or Blue Stain |
| E. Yellow Stain | K. Gray Stain |
| F. Red or Orange Stain | |

ORGANIC ACIDS

	CLEAR		W/ UR-4	
	SPLASH	24 HR.	SPLASH	24 HR.
Acetic Acid 5%	1A	2D	1D	1D
Acetic Acid 10%	1A	2D	1D	1D
Acetic Acid 20%	1A	3	1D	3
Glacial Acetic Acid	1A	4	1D	4
Butyric Acid 10%	1A	3	1D	3
Cresylic 10%	1C	2D	1D	4
Formic Acid 10%	1C	2	1D	3
Lactic Acid 10%	1Ci	1Ci	2D	2D
Lactic Acid 25%	1Ci	1Ci	2D	2D
Maleic Acid 30%	1C	1C	2D	2D
Maleic Acid 60%	1C	1C	2D	2D
Malic Acid 50%	1A	1A	1D	1D
Monoacetic Acid 5%	2A	2A	3	3
Monoacetic Acid 10%	3A	3A	4	4
Oleic Acid	1A	1A	1A	1A
Oxalic Acid Sat.	1A	1A	1A	1A
Picric Acid Sat.	2C	2E	2E	2E

INORGANIC ACIDS

	CLEAR		W/ UR-4	
	SPLASH	24 HR.	SPLASH	24 HR.
Acetic Acid 50%	1A	1A	1A	1A
Boric Acid Sat.	1A	1A	1A	1A
Chromic Acid 2%	1G	1G	1Di	1Di
Chromic Acid 10%	1G	1G	1Di	1Bi
Chromic Acid 15%	1G	1G	1Di	1Bi
Hydrochloric Acid 10%	1A	1A	1D	1D
Hydrochloric Acid 37%	1A	2C	1D	1D
Hydrochloric Acid Conc	1C	2C	1A	4
Hydrofluoric Acid 10%	1A	1A	1D	1D
Hydrofluoric Acid 24%	1i	1i	1Di	1Di
Hypochlorous 5%	1A	1A	1A	1A
Nitric Acid 10%	3	3	4	4
Nitric Acid 30%	4	N/A	4	4
Nitric Acid Over 40%	4	N/A	4	4

INORGANIC ACIDS CONT.

	CLEAR		W/ UR-4	
	SPLASH	24 HR.	SPLASH	24 HR.
Nitric Acid Conc	4	N/A	4	4
Perchloric Acid 35%	1C	1C	1Di	1Di
Phosphoric Acid 10%	2Ci	2Ci	2Di	2Di
Phosphoric Acid 35%	2Ci	2Ci	2Di	2Di
Phosphoric Acid 75%	2Ci	2Ci	2Di	2Di
Sulfuric Acid 25%	2Ci	2Ci	4	4
Sulfuric Acid 50%	2Ci	2Ci	4	4
Sulfuric Acid 70%	2i	2Ci	4	4
Sulfuric Acid Conc.	3	4	4	4

ALKALIES AND SALTS

	CLEAR		W/ UR-4	
	SPLASH	24 HR.	SPLASH	24 HR.
Aluminum Chloride 50%	1A	1A	1A	1A
Ammonium Chloride 50%	1A	1A	1A	1A
Ammonium Hydroxide 10%	1A	1A	1A	1A
Ammonium Hydroxide 20%	1A	1A	1A	1A
Ammonium Hydroxide 50%	1A	1A	1A	1E
Ammonium Nitrate Sat.	1A	1A	1A	1A
Ammonium Persulfate Sat.	1A	1A	1A	1A
Ammonium Sulfate Sat.	1A	1A	1A	1A
Calcium Chloride 50%	1A	1A	1A	1A
Calcium Hydroxide Sat	1A	1A	1A	1A
Calcium Hypochlorite 15%	1A	1A	1A	1A
Ferric Chloride	1G	1G	1A	1A
Ferric Sulfate	1G	1G	1A	1A
Potassium Hydroxide 40%	1G	1G	1A	1A
Sodium Bicarbonate Sat.	1G	1G	1A	1A
Sodium Bisulfate Sat.	1G	1G	1A	1A
Sodium Carbonate Sat.	1G	1G	1A	1A
Sodium Chloride 20%	1A	1A	1A	1A
Sodium Hydroxide 10%	1A	1A	1A	1A
Sodium Hydroxide 50%	1A	1A	1A	1A
Sodium Hypochlorite 10%	1G	1G	1A	1A

ALKALIES AND SALTS CONT.				
	CLEAR		W/ UR-4	
	SPLASH	24 HR.	SPLASH	24 HR.
Sodium Sulfate Sat.	1G	1G	1A	1A
Sodium Sulfide Sat.	1G	1G	1A	1A
Trisodium Phosphate 10%	1G	1G	1A	1A
Trisodium Phosphate Sat.	1G	1G	1A	1A

SOLVENTS				
	CLEAR		W/ UR-4	
	SPLASH	24 HR.	SPLASH	24 HR.
Acetone	1A	1A	1A	1A
Benzene	1A	1A	1A	1A
Butyl Acetate	1A	1A	1A	1A
Carbon Tetrachloride	1A	1A	1A	1A
Chlorobenzene	1A	1A	1A	1A
Cyclohexane	1A	1A	1A	1A
Cyclohexanone	1A	1A	1A	1A
Chloroform	1A	1A	1A	1A
Diacetone Alcohol	1A	1A	1A	1A
Ethyl Acetate	1A	1A	1A	1A
Ethyl Alcohol	1A	1A	1A	1A
Ether	1A	1A	1A	1A
Ethylene Dichloride	1A	1A	1A	1A
Methyl Alcohol	1A	1A	1A	1A
Methyl Ethyl Ketone	1A	1A	1A	1A
Methyl Isobutyl Ketone	1A	1A	1H	1H
Methyk Salicycate 50% in Toluene	1A	1A	1A	1A
Methylene Chloride	1A	1A	1A	1A
Mineral Spirits	1A	1A	1A	1A
Naphtha	1A	1A	1A	1A
Perchloroethane	1H	1H	1A	1A
Toluene	1A	1A	1A	1A
Trichloreethylene	1A	1A	1A	1A
Xylene	1A	1A	1A	1A
Gasoline	1A	1A	1A	1A
Hexane	1A	1A	1A	1A
SC-100	1A	1A	1A	1A
PM Acetate	1A	1A	1A	1A

MISCELLANEOUS CHEMICALS				
	CLEAR		W/ UR-4	
	SPLASH	24 HR.	SPLASH	24 HR.
Arcylonitrile	1A	1A	1A	1A
Aniline	1H	1H	A	1E
Beer	1A	1A	1A	1A
Bromine	1E	4	1Ei	4
Butyl Lactat	1A	1A	1Di	1Di
Carbon Disulfide	1A	1A	1A	1A
Corn Oil	1A	1A	1A	1A
Diethyl Phthalate	1A	1A	1A	1A
Dimethyl Phthalate	1A	1A	1A	1A
Ethylene Glycol	1A	1A	1D	1D
Formaldehyde	1A	1A	1D	1D
Glycerine	1A	1A	1A	1A
Hydrogen Peroxide	1A	1A	1A	1A
Fruit Juice	1A	1A	1A	1A
Lanoline	1A	1A	1A	1A
Lard	1A	1A	1A	1A
Linseed Oil	1A	1A	1A	1A
Mayonnaise	1A	1A	1A	1A
Mustard	1A	1E	1E	1E
Phenol 5%	1Ki	3i	4	4
Pyridine	1A	1A	1A	3
Sydrol 500A	1A	1A	1A	1A
Sydrol 500B	1A	1A	1A	1A
Sugar Soln. Sat	1A	1A	1A	1A
Tiacetin	1A	1A	1A	1A
Triethylene Glycol	1A	1A	1D	1D
Water	1A	1A	1A	1A
Wine	1A	1G	1A	1A
Ketchup	1A	1A	1A	1A
Brake Fluid	1A	1A	1A	1A
Motor Oil	1A	1A	1A	1A
Grease	1A	1A	1A	1A
Tide Soln.	1A	1A	1A	1A
1,1,1 Trichloroethane	1A	1A	1A	1A
2-Nitro Propane	1A	1A	1A	1A
Turpentine	1A	1A	1A	1A
Jet Fuel A-1	1A	1A	1A	1A
Cola	1A	1A	1A	1A
10% Citric	1A	1A	1A	1A
Isopropyl Alcohol	1A	1A	1A	1A
Transmission Fluid	1A	1A	1A	1A
Amyl Aetane	1A	1A	1A	1A
Triethanolamine	1A	1A	1A	1A
Tannic Acid	1A	1A	1A	1A
Tartanic Acid	1A	1A	1A	1A
Betadine Solution	1A	1G	1A	1E
Urine	N/A	N/A	N/A	N/A

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