

WS Hampshire  
Over 100 Years of Non-Metallic Material Fabrication

[Wesliner® Material Specifications](#)

Table A: Mechanical Properties

Specification	
Tensile Strength	7,500 PSI (51.7 Mpa)
Tensile Modulus	1.7 x 10 <sup>6</sup> PSI (11,700 Mpa)
Flexural Strength	21,000 PSI (145 Mpa)
Flexural Strength at 130°C	12,900 PSI (89 Mpa)
Compressive Strength	32,500 PSI (224 Mpa)
IZOD Impact Strength (Notched)	8.4 Ft Lb/in (4.5 J/cm)

Table B: Flame and Smoke Characteristics

Specification	
Oxygen Index	35%
Flame Spread (USA Calculation)	25
Flame Spread (Canada Calculation)	20
Smoke Density	115

Table C: Physical Properties

Specification	
Water Absorption	.4%
Specific Gravity	1.81
Coefficient of Thermal Expansion	2 In/in/°C x 10 <sup>-5</sup>
Thermal Conductivity	1.9 BTU/Hr/Ft <sup>2</sup> /In/°F

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Table D: Chemical Resistance

Reagent	Fume Resistance Rating*	Splash and Spill Resistance Rating*
Hydrochloric Acid (37%)	2	1
Sulfuric Acid (33%)	2	1
Sulfuric Acid (77%)	1	1
Sulfuric Acid (96%)	1	2
Formic Acid (90%)	2	1
Nitric Acid (20%)	2	2
Nitric Acid (30%)	1	2
Nitric Acid (70%)	3	2
Hydrofluoric Acid (48%)	2	2
Phosphoric Acid (85%)	1	1
Chromic Acid (60%)	1	4
Acetic Acid (98%)	1	1
Amonium Hydroxide (20%)	1	1
Sodium Hydroxide (10%)	1	1
Sodium Hydroxide (20%)	1	3
Sodium Hydroxide (40%)	1	3
Sodium Hydroxide Flake	1	-
Sodium Sulfide	1	1
Zinc Chloride	2	1
Tincture of Iodine	3	3
Silver Nitrate	2	1
Methyl Alcohol	1	1
Ethyl Alcohol	1	1
Butyl Alcohol	1	1
Benzene	1	1
Xylene	1	1
Toluene	1	1
Gasoline	1	1
Dichloro Acetic Acid	2	2
Dimethyl Formanide	2	1
Ethyl Acetate	1	1
Amyl Acetate	1	1
Acetone	1	1
Chloroform	1	1
Carbon Tetrachloride	1	1
Phenol	2	2
Cresol	1	1
Formaldehyde	1	1
Trichloroethylene	1	1
Ethyl Ether	1	1
Furfural	1	3

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Reagent	Fume Resistance Rating*	Splash and Spill Resistance Rating*
Methylene Chloride	1	1
Mono Chloro Benzene	1	1
Dioxane	1	1
Methyl Ethyl Ketone	1	1
Acid Dichromate	1	2
Hydrogen Peroxide	1	1
Napthalene	1	1

\*Rating Key:

- 1 = No Effect (No change in color or gloss)
- 2 = Excellent (Slight change in color or gloss)
- 3 = Good (A clearly observable change in color or gloss)
- 4 = Fair (Objectionable change in appearance)
- 5 = Failure (Pitting, cratering, or erosion of surface)