

JANUARY 2009

RIGID PVC NONMETALLIC CONDUIT AND UTILITY DUCT

THERMAL PROPERTIES:

Thermal Conductivity	1.3 BTU in/hr-ft ² -°F
Heat Distortion °F @ 264 psi	158°F
Coefficient of Linear Thermal Expansion (Also see expansion chart below)	0.000034 inch/inch/°F

ELECTRICAL PROPERTIES:

Dielectric Strength	1,100 volts/mil
Dielectric Constant	4.0 (60 CPS @ 30°C)
Power Factor	1.93 (60 CPS @ 30°C)
Impedance	0.010 volts/amp/100 ft (3 phase power, 90% P.F.)

MECHANICAL PROPERTIES:

Izod Impact ft-lbs/in of notch	0.65 - 1.5
Tensile Strength @ 73.4°F	5,000 to 7,000 lbs/in ²
Specific Gravity	1.4 to 1.7

ENVIRONMENTAL RESISTANCE PROPERTIES:

Electrolytic Corrosion	JM Eagle™ PVC products are immune to electrolytic and galvanic corrosion.
Biological Attack	JM Eagle™ PVC products do not support the growth of microorganisms or macroorganisms.
Sunlight Resistance	JM Eagle's PVC formulations contain UV inhibiting ingredients. JM Eagle™ conduit conforms to ANSI/UL 651 sunlight resistance standards.

THERMAL EXPANSION/CONTRACTION CHART FOR JM EAGLE™ PVC CONDUIT AND DUCT

Temperature Change in Degrees F	Length Change in Inches per 100 Feet of PVC Conduit	Temperature Change in Degrees F	Length Change in Inches per 100 Feet of PVC Conduit	Temperature Change in Degrees F	Length Change in Inches per 100 Feet of PVC Conduit	Temperature Change in Degrees F	Length Change in Inches per 100 Feet of PVC Conduit
5	0.2	55	2.2	105	4.2	155	6.3
10	0.4	60	2.4	110	4.5	160	6.5
15	0.6	65	2.6	115	4.7	165	6.7
20	0.8	70	2.8	120	4.9	170	6.9
25	1.0	75	3.0	125	5.1	175	7.1
30	1.2	80	3.2	130	5.3	180	7.3
35	1.4	85	3.4	135	5.5	185	7.5
40	1.6	90	3.6	140	5.7	190	7.7
45	1.8	95	3.8	145	5.9	195	7.9
50	2.0	100	4.1	150	6.1	200	8.1

CHEMICAL COMPATIBILITY CHART

Environments containing the chemicals listed below are generally acceptable for JM Eagle Rigid PVC Nonmetallic Conduit and Utility Duct.

Acetic Acid 0-20%
Acetic Acid 20-30%
Acetic Acid 30-60%
Acetic Acid Vapors
Adipic Acid
Alum
Aluminum Chloride
Aluminum Fluoride
Aluminum Hydroxide
Aluminum Oxychloride
Aluminum Nitrate
Aluminum Sulfate
Ammonia-Dry Gas
Ammonium Bifluoride
Ammonium Carbonate
Ammonium Chloride
Ammonium Hydroxide 28%
Ammonium Metaphosphate
Ammonium Nitrate
Ammonium Persulfate
Ammonium Phosphate — Neutral
Ammonium Sulfate
Ammonium Sulfide
Ammonium Thiocyanate
Amyl Alcohol
Anthraquinone
Anthraquinonesulfonic
Antimony Trichloride
Arsenic Acid 80%
Arylsulfonic Acid
Barium Carbonate
Barium Chloride
Barium Hydroxide
Barium Sulfate[^]
Barium Sulfide
Beet — Sugar Liquor
Benzene Sulfonic Acid 10%
Benzoic Acid
Bismuth Carbonate
Black Liquor (Paper Industry)
Bleach —12.5% Active CL,
Borax
Boric Acid
Brine
Breeder Pellets — Deriv. Fish
Bromic Acid
Bromine—Water
Butane
Butadiene
Butyl Alcohol
Butylene

Calcium Carbonate
Calcium Chlorate
Calcium Chloride
Calcium Hydroxide
Calcium Hypochlorite
Calcium Nitrate
Calcium Sulfate
Carbonic Acid
Carbon Dioxide Gas — Wet
Carbon Dioxide — Aqueous Solution
Carbon Monoxide
Caustic Potash
Caustic Soda
Chloracetic Acid
Chloral Hydrate
Chlorine Water
Chrome Alum
Chromic Acid 10%
Citric Acid
Copper Chloride
Copper Cyanide
Copper Fluoride
Copper Nitrate
Copper Sulfate
Cottonseed Oil
Cresylic Acid 50%
Crude Oil — Sour
Crude Oil — Sweet

Deminerlized Water
Dextrin
Dextrose
Diglycolic Acid
Disodium Phosphate

Ethyl Alcohol
Ethylene Glycol

Fatty Acids
Ferric Chloride
Ferric Nitrate
Ferric Sulfate
Ferrous Chloride
Ferrous Sulfate
Fluorosilicic Acid
Formaldehyde
Fructose

Gallic Acid
Gas — Coke Oven
Gas — Natural (Dry)
Gas —Natural (Wet)
Glucose
Glycerine (Glycerol)
Glycol
Glycolic Acid
Green Liquor (Paper Industry)

Heptane
Hexanol, Tertiary
Hydrobromic Acid 20%
Hydrochloric Acid 0%-25%
Hydrochloric Acid 25% 40%
Hydrocyanic Acid or
Hydrogen Cyanide
Hydrofluorosilicic Acid
Hydrogen Phosphide
Hydrogen Sulfide — Dry
Hydrogen Sulfide —
Aqueous Solution
Hydroquinone
Hydroxylamine Sulfate

Kerosene

Lactic Acid 28%
Lauric Acid
Lauryl Chloride
Lauryl Sulfate
Lead Acetate
Lime Sulfur
Linoleic Acid
Linseed Oil
Lubricating Oils

Magnesium Carbonate
Magnesium Chloride
Magnesium Hydroxide
Magnesium Nitrate
Magnesium Sulfate
Maleic Acid
Malic Acid
Mercuric Chloride
Mercuric Cyanide
Mercurous Nitrate
Mercury
Mineral Oils

Nickel Chloride
Nickel Nitrate

Oils and Fats
Oils — Petroleum — (See Type)
Oleic Acid
Oxalic Acid

Palmitic Acid 10%
Phosphoric Acid — 0—25%
Phosphoric Acid — 25-50%

Phosphoric Acid — 50-85%
Photographic Chemicals
Potassium Bicarbonate
Potassium Bichromate
Potassium Borate
Potassium Bromide
Potassium Carbonate
Potassium Chloride
Potassium Chromate
Potassium Cyanide
Potassium Dichromate
Potassium Ferricyanide
Potassium Ferrocyanide
Potassium Fluoride
Potassium Hydroxide
Potassium Nitrate
Potassium Perborate
Potassium Perchlorate
Potassium Persulfate
Potassium Sulfate
Propane
Propyl Alcohol

Silicic Acid
Silver Cyanide
Silver Nitrate
Silver Plating Solutions
Sodium Acetate
Sodium Arsenite
Sodium Benzoate
Sodium Bicarbonate
Sodium Bisulfate
Sodium Bisulfite
Sodium Bromide
Sodium Chloride
Sodium Cyanide
Sodium Dichromate
Sodium Ferricyanide
Sodium Ferrocyanide
Sodium Fluoride
Sodium Hydroxide
Sodium Hypochlorite
Sodium Nitrate
Sodium Nitrite
Sodium Sulfate
Sodium Sulfide
Sodium Sulfite
Sodium Thiosulfate (Hypo)
Stannic Chloride
Stannous Chloride
Stearic Acid
Sulfur
Sulfur Dioxide — Gas Dry
Sulfur Trioxide
Sulfuric Acid — 0%-10%
Sulfuric Acid —10%-75%

Tannic Acid
Tanning Liquors
Tartaric Acid
Titanium Tetrachloride
Triethanolamine
Trimethyl Propane
Trisodium Phosphate
Turpentine

Urea

Vinegar

Whiskey
White Liquor (Paper Industry)
Wines

Zinc Chloride
Zinc Chromate
Zinc Cyanide
Zinc Nitrate
Zinc Sulfate