Engineering Specification

Job Name

Orion Representative ____

Quantity Required _____

No-Hub (PVDF) Couplings For PVDF Chemical Waste Systems

Overview

Orion PVDF No-Hub couplings are reliable, economical, and easy-to-install in chemical drainage applications. They require standard torquing tools to tighten, plus a manual pipe-grooving tool to prepare cut pipe ends for joining. The simplified design and installation method makes Orion No-Hub couplings ideal for undercounter assembly. If piping system additions or modifications are anticipated, the No-Hub design allows for easy disassembly and reconfiguration. The strength and security of our corrugated stainless steel outer band combined with the chemical resistance and no wetted metal surfaces of the inner coupling body result in a joining system that is durable, versatile, and economical to install.

Features

- Creates strong, tight, and reconfigurable joints in chemical waste drainage applications.
- The one-piece design of the stainless-steel outer shell offers easier and faster installation.
- The ribbing design of the outer shell provides consistent compression on the inner liner for more reliable performance.
- Available in 1 1/2", 2", 3", 4", and 6" sizes and pre-grooved at factory.
- No-Hub mechanical joint method requires torquing to 60 in-lb.
- Used to join Plenum Plus PVDF pipe and fittings.

Call customer service at 1- (800) 334-6259 if you need assistance with table details.

Size & Material					
P	PVDF Cream Colored Couplings				
EDP #	Description				
950112	NH PLEN+ 1.5 CPLG SS/CRM				
950113	NH PLEN+ 2 CPLG SS/CRM				
950114	NH PLEN+ 3 CPLG SS/CRM				
950115	NH PLEN+ 4 CPLG SS/CRM				
950116	NH PLEN+ 6 CPLG SS/CRM				



6" PVDF Coupling

Contractor Signature _____

Contractor's P.O. No. _____

Approval Date _____



NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

Chemical compatibility charts are provided below to allow for proper selection of No-Hub Couplings based off applications and chemicals laid out in the design specifications.

Orion Fittings product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Orion Fittings Technical Service. Orion Fittings reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Orion Fittings products previously or subsequently sold.



A WATTS Brand

USA: T: (800) 334-6259 • OrionFittings.com **Canada:** T: (888) 208-8927 • F: (905) 481-2316 • OrionFittings.ca **Latin America:** T: (52) 55-4122-0138 • OrionFittings.com

Ratings	Chemical Compatibility Guide
A - Excellent	The component material is completely or almost completely inert when used with the specified chemical with negligible effect on mechanical properties.
B - Good	There is some slight chemical attack on the component material that could create slight corrosion or discoloration but otherwise has minor effect on mechanical properties.
C - Fair	The component material is partially attacked or attacked by absorption of the specified chemical at the specified concentration and tem- perature levels and swelling may occur. The life expectancy of the component will be shortened and it is recommended that a different component material be used in these cases.
D - Poor	The component material has no resistance to chemical attack by the specified chemical at the specified concentration and temperature and immediate damage may occur. Severe effects make this combination unsuitable for ANY use.
	There is little or no technical information qualitable for this combination of comparent material and abamical at this temperature and

N/A - Unknown There is little or no technical information available for this combination of component material and chemical at this temperature and concentration. This combination has no recommendation and may require extensive testing and evaluation for its safe use.

Chemical Compatibility Guide	EPDM	Polypropylene (PP) Blueline & Brownline	PVDF (Kynar®) Plenum Plus
Acetaldehyde	А	А	D
Acetamide	А	А	С
Acetate Solvents	А	В	
Acetic Acid	А	В	C
Acetic Acid, 20%	А	А	А
Acetic Acid, 80%	А	А	С
Acetic Acid, Glacial	В	А	А
Acetic Anhydride	В	В	В
Acetone	А	А	D
Acetylene	А	А	А
Acrylonitrile	D	А	А
Alcohols: Amyl	А	В	A
Alcohols: Benzyl	В	А	А
Alcohols: Butyl	А	А	A
Alcohols: Ethyl	А	А	А
Alcohols: Isobutyl	А	А	A
Alcohols: Isopropyl	А	А	A
Alcohols: Methyl	А	А	A
Alcohols: Propyl (1-Propanol)	А	А	A
Aluminum Fluoride	А	А	A
Aluminum Hydroxide	А	А	A
Aluminum Nitrate	А	А	А
Aluminum Sulfate, 10%	А	А	A
Alums	А	А	N/A
Amines	В	В	N/A
Ammonia Nitrate	А	А	А
Ammonia, 10% (Ammonium Hydroxide)	А	А	А
Ammonia, anhydrous	А	А	А
Ammonia, liquid	А	А	А
Ammonium Acetate	А	А	А
Ammonium Bifluoride	А	А	А
Ammonium Carbonate	А	А	А

Chemical Compatibility Guide	EPDM	Polypropylene (PP) Blueline & Brownline	PVDF (Kynar®) Plenum Plus
Ammonium Chloride, 10%	А	A	A
Ammonium Hydroxide (Aqueous Ammonia)	А	А	А
Ammonium Nitrate, 10%	А	A	А
Ammonium Persulfate	А	Α	А
Ammonium Phosphate, Dibasic	А	Α	А
Ammonium Phosphate, Monobasic	А	А	N/A
Ammonium Sulfate	А	Α	А
Ammonium Thiosulfate	А	А	В
Amyl Acetate	А	В	А
Amyl Chloride	D	D	А
Antifreeze	А	D	N/A
Aqua Regia (80% HCl, 20% HNO3)	С	В	А
Arsenic Acid	А	A	A
Asphalt	С	В	А
Barium Carbonate	A	A	А
Barium Hydroxide	A	В	
arium Nitrate	А	А	
Barium Sulfate	А	В	A
Barium Sulfide	А	В	А
Beer	А	А	А
Benedicts Solution	А	А	А
Benzaldehyde	А	D	А
Benzene	D	D	А
Benzene Sulfonic Acid	С	D	А
Benzoic Acid	D	В	А
Benzyl Chloride	D	С	А
Biuret Test Solution	В	A	
Blue Dye 1	А	А	А
- Blue Dye 2	А	А	А
Bogen Universal Indicator	В		
Borax (Sodium Borate)	А	А	А
Boric Acid, 10%	А	А	А
Bromine Gas	D	D	А
Bromine Water	В	D	
Bromocresol Blue Indicator Solution	А	А	A
Bromocresol Green Indicator Solution	А	А	А
Butadiene	C	C	A
Butane Gas	D	A	А
Butanol (Butyl Alcohol)	В	A	A
Butyl Amine	D	В	A
Butyl Ether	D	D	A
Butyric Acid, 20%	В	В	A
Calcium Carbonate (Chalk) CaCO3	A	A	A
Calcium Chloride, 10%	A	A	A
Calcium Hydroxide (Lye), 10%	A	A	A
Calcium Hypochlorite	A	A	A
Calcium Nitrate	A	A	A
Calcium Oxide (Unslaked Lime) CaO	A	A	A
Calcium Sulfate, 10%	A	A	A

Chemical Compatibility Guide	EPDM	Polypropylene (PP) Blueline & Brownline	PVDF (Kynar®) Plenum Plus
Carbolic Acid (Phenol)	А	В	A
Carbon Black	А	D	
Carbon Dioxide, dry	В	А	А
Carbon Dioxide, wet	В	А	А
Carbon Monoxide Gas	А	А	В
Carbonic Acid (Carbonated Water)	А	В	А
Chlorine Dioxide, 8% aqueous solution	С	С	А
Chlorine Gas, dry 10%	D	D	А
Chlorine Water (5-10 ppm)	В	D	В
Chloroacetic Acid	В	С	А
Chlorobenzene (mono)	D	С	А
Chlorobromomethane	В	А	N/A
Chloroform	D	С	А
Chlorosulfonic Acid	D	D	D
Chromatography Solvent	A	A	, j
Chromic Acid, 10%	C	D	А
Chromic Acid, 30%	В	D	A
Chromic Acid, 5%	A	D	A
Chromic Acid, 50%	В	D	A
Citric Acid, aqueous 10%	A	A	A
Citrus Oil or Terpene (d-Limonene)	В	A	A
Clorox® Bleach	В	D	A
Cobalt Chloride Solution	A	D	7
Coffee	A	A	N/A
Congo Red Indicator Solution	A	A	IV A
Copper	A	A	
Copper (II) Carbonate	A	A	
Copper Chloride	A	A	А
Copper Sulfate, 5%	A	A	A
Cottonseed Oil	C	A	
Cresols	D	D	А
Crystal Violet Solution	A	A	
Cyclohexane	D	D	А
Cyclohexanore	В	D	D
Detergents	A	A	Ā
Dextrose Solution	A		
Diacetone Alcohol	A	А	D
Dichlorobenzene	D	C	Ā
Dichloroethane	N/A	D	A
Diesel Fuel	D	A	A
Diethyl Ether	D	A	A
Diethylamine	B	A	D
Dimethylformamide	B	A	D
Dyes	A	N/A	N/A
Ethane	D	D	A
Ethanol (Ethyl Alcohol)	A	A	A
Ethanolamine	В	D	C
Ether	D	D	В
Ethyl Acetate	В	A	D
	2		<u> </u>

Chemical Compatibility Guide	EPDM	Polypropylene (PP) Blueline & Brownline	PVDF (Kynar®) Plenum Plus
Ethyl Benzoate	D	Bueine & Drownine B	D
Ethyl Chloride	C	D	A
Ethyl Ether	D	D	A
Ethylene Glycol	A	A	A
Ethylene Oxide Gas (EtO), dry 3%	D	D	A
Fatty Acids	C	A	A
Ferric Chloride, 10%	Ä	A	A
Ferric Nitrate	A	A	A
Ferric Sulfate	A	A	A
Ferrous Sulfate	A	A	A
Fluosilicic Acid, 100%	В	A	A
Fluosilicic Acid, 20%	В	A	A
Formaldehyde, 100%	В	C	A
Formaldehyde, 40%	В	A	A
Formic Acid (Methanoic Acid), 10%	A	A	A
Fruit Juices	A	В	A
Fuel Oils	D	A	В
Furfural (Ant Oil) C5H4O2	D	D	В
Gallic Acid, 5%	В	A	A
Gasoline (high aromatic)	D	A	A
Gasoline, leaded, ref.	D	В	A
Gasoline, unleaded	D	C	A
Glucose	A	A	A
Glue, PVA (Polyvinyl Acetate)	A	N/A	A
Glycerin	A	A	A
Glycolic Acid	A	A	В
Grease	D	N/A	A
Green Dye	A	A	A
Heptane	D	C	A
Hexane	D	В	A
Honey	A	A	A
Hydraulic Oil (Petro)	D	D	A
Hydraulic Oil (Synthetic)	A	D	A
Hydrazine (Diamine) H2NNH2	A	C	A
Hydrobromic Acid, 100%	A	C	A
Hydrobromic Acid, 100 % Hydrobromic Acid, 20%	A	A	A
Hydrochloric Acid, 20% Hydrochloric Acid, 100%	D	В	A
Hydrochloric Acid, 20%	A	В	A
Hydrochloric Acid, 20% Hydrochloric Acid, 37%	C	С	A
Hydrochloric Acid, dry gas	N/A	В	A
Hydrofluoric Acid, 100%	D	С	A
Hydrofluoric Acid, 20%	D	A	A
Hydrofluoric Acid, 20% Hydrofluoric Acid, 50%	D	A	A
Hydrofluoric Acid, 50% Hydrofluoric Acid, 75%	C	C	A
		A	
Hydrogen Gas	A	A	A
Hydrogen Peroxide, 10% Hydrogen Peroxide, 100%	A D	B	A
Hydrogen Peroxide, 100%	B	B	A
Hydrogen Peroxide, 30%			A
Hydrogen Peroxide, 50%	В	В	А

Chemical Compatibility Guide	EPDM	Polypropylene (PP) Blueline & Brownline	PVDF (Kynar®) Plenum Plus
Hydrogen Sulfide, aqueous	В	A	A
Hydrogen Sulfide, dry	В	A	A
lodine, Tincture	В	N/A	
Isoproyl Alcohol	В	В	
Ketones	D	С	С
Lacquer Thinners	D	D	N/A
Lacquers	D	D	D
Lactic Acid	А	В	В
Latex	А	Α	А
Lead	А	А	
Lead (II) Nitrate	А	А	
Lead Nitrate Solution	А	А	
Ligroin	D	А	А
Lime (CaO)	D	D	А
Linoleic Acid	D	В	А
Lithium Hydroxide	А	А	N/A
Lubricants	D	А	А
Lugol's lodine	А	А	
Lye (KOH, Potassium Hydroxide)	А	А	А
Lye (NaOH, Sodium Hydroxide)	А	А	D
Magnesium Bisulfate	N/A	А	N/A
Magnesium Bromide	D	D	
Magnesium Chloride, 10%	А	А	А
Magnesium Hydroxide, 10%	А	А	А
Magnesium Nitrate	А	А	А
Magnesium Sulfate	А	А	А
Malic Acid (Apple Acid) C4H6O5	D	А	А
Manganese (II) Sulfate	А	А	А
Manganese Dioxide	А		А
Marbel Chips	А	А	А
Mercury	А	В	А
Methane Gas	D	А	А
Methanol (Methyl Alcohol)	А	А	А
Methyl Acetate	В	D	В
Methyl Acetone (mixture)	А	D	D
Methyl Alcohol, 10%	А	А	А
Methyl Blue	А	Α	А
Methyl Butyl Ketone	А	D	D
Methyl Cellosolve	В	В	А
Methyl Chloride	С	D	А
Methyl Ethyl Ketone (MEK, Butanone)	А	В	D
Methyl Ethyl Ketone Peroxide (MEKP)	В	N/A	N/A
Methyl Isobutyl Ketone	В	А	D
Methyl Isopropyl Ketone	С	N/A	А
Methyl Orange	А	А	
Methyl Red Indicator	А	Α	
Methylamine	А	Α	С
Methylene Chloride	С	В	В
Milk	А	В	А

Chemical Compatibility Guide	EPDM	Polypropylene (PP) Blueline & Brownline	PVDF (Kynar®) Plenum Plus
Mineral Oil	С	А	
Mineral Spirits	D	В	N/A
Monochloroacetic Acid	С	N/A	В
Monoethanol Amine	В	В	С
Morpholine	D	В	В
Motor Oil	D	А	В
Mustard	А	А	А
Naphtha	D	В	А
Natural Gas	D	А	N/A
Ninhydrin Solution	?	?	?
Nitric Acid (Concentrated)	D	D	А
Nitric Acid, 20%	А	А	А
Nitric Acid, 50%	D	В	А
Nitric Acid, 5-10%	А	А	А
Nitrobenzene	D	В	А
Nitromethane	В	В	А
Nitrous Acid	А	А	В
Nitrous Oxide	С	D	D
Oils: Citric	В	А	А
Oils: Cod Liver	А	А	А
Oils: Corn	С	А	А
Oils: Cottonseed	С	А	А
Oils: Diesel Fuel (20, 30, 40, 50)	D	А	А
Oils: Fuel (1, 2, 3, 5A, 5B, 6)	D	В	В
Oils: Hydraulic Oil (Petro)	D	D	А
Oils: Hydraulic Oil (Synthetic)	А	D	А
Oils: Mineral	D	А	А
Oils: Silicone	А	А	А
Oils: Soybean	С	А	А
Oils: Turbine	А	В	А
Oleic Acid	С	В	А
Oxalic Acid, cold 10%	А	А	В
Ozone Gas	А	В	А
Palmitic Acid	В	В	А
Paraffin	D	А	А
Pentane (Amyl Hydride) C5H12	D	D	А
Peracetic Acid (Peroxyacetic Acid)	В	А	А
Perchloric Acid	В	С	А
Peroxyacetic Acid (Peracetic Acid)	В	А	А
Petroleum	D	В	А
Phenol (Carbolic Acid)	В	В	А
Phenol Red Indicator	А	А	А
Phenol, 10%	В	В	А
Phosphoric Acid, >40%	В	А	В
Phosphoric Acid, crude	В	В	А
Phosphoric Acid, S40%	В	А	В
Phosphorus	N/A	А	А
Photographic Developer	В	А	N/A
Photographic Solutions	А	А	В

Chemical Compatibility Guide	EPDM	Polypropylene (PP) Blueline & Brownline	PVDF (Kynar®) Plenum Plus
Potassium Bicarbonate	А	А	В
Potassium Bisulfate	Α	Α	
Potassium Bitartrate	А	А	
Potassium Bromide	А	А	А
Potassium Chloride, up to 30%	А	А	А
Potassium Dichromate	А	А	А
Potassium Ferrocyanide	А	А	А
Potassium Hydroxide (Caustic Potash)	А	А	А
Potassium Iodide	А	А	А
Potassium Nitrate, 10%	А	А	А
Potassium Nitrite	А	А	А
Potassium Permanganate	А	А	А
Propane (liquefied)	D	Α	А
Propylene Glycol	А	А	А
Pyridine (C H N)	В	Α	D
Red Dye 3	А	Α	А
Red Dye 40	А	Α	А
Resorcinol (C6H6O2)	D	Α	N/A
Rosins	А	А	N/A
Salicylic Acid	А	А	А
Salt Brine (NaCl saturated)	А	А	А
Sea Water	А	А	А
Shellac (Bleached)	А	А	N/A
Shellac (Orange)	А	А	N/A
Silicone	А	А	А
Silver	А		
Silver Bromide	N/A	N/A	N/A
Silver Nitrate	А	А	А
Silver Oxide	А		
Soap Solutions	А	А	А
Sodium Acetate	А	А	А
Sodium Benzoate	А	А	А
Sodium Bicarbonate (Baking Soda)	А	А	А
Sodium Bisulfate, 10%	А	А	А
Sodium Bisulfite	А	А	А
Sodium Bromide	А	А	А
Sodium Carbonate	А	А	А
Sodium Chlorate	А	А	A
Sodium Chloride	А	А	А
Sodium Hydrosulfite (Sodium Dithionite)	В	N/A	N/A
Sodium Hydroxide, 80%	A	A	A
Sodium Hypochlorite	A		
Sodium Hypochlorite, <20%	A	А	A
Sodium Hypochlorite, 100%	A	В	A
Sodium Nitrate	A	A	A
Sodium Perborate	A	A	N/A
Sodium Peroxide	A	В	A
Sodium Polyphosphate	A	A	A
Sodium Silicate (Water Glass)	A	A	A
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Chemical Compatibility Guide	EPDM	Polypropylene (PP) Blueline & Brownline	PVDF (Kynar®) Plenum Plus
Sodium Sulfide	А	А	A
Sodium Sulfate (Salt Cake, Thenardite)	А	А	А
Sodium Sulfite	А	А	А
Sodium Thiosulfate (hypo)	А	A	А
Starch	А	A	А
Stearic Acid	В	A	А
Stoddard's Solvent	D	С	A
Styrene (Vinylbenzene) C6H5CHCH2	D	N/A	A
Sulfite Liquors	А	A	А
Sulfur Dioxide	А	A	А
Sulfur Dioxide Gas, dry	А	А	A
Sulfur Dioxide Gas, wet	А	C	A
Sulfur Trioxide, dry	В	D	С
Sulfuric Acid, <10%	А	A	А
Sulfuric Acid, 10-75%	D	A	А
Sulfuric Acid, 75-100%	D	С	А
Sulfuric Acid, cold concentrated	D	A	А
Sulfurous Acid, 10%	В	A	А
Tannic Acid, 10%	А	A	В
Tetrachloroethane	D	С	А
Toluene (Toluol)	D	С	А
Tributyl Phosphate (TBP)	А	В	А
Trichloroacetic Acid	В	A	В
Trichloroethylene	D	С	В
Triethylamine	А	D	А
Trisodium Phosphate	А	A	А
Turpentine (C0H16)	D	D	А
Universal indicator solution	А	A	А
Urea	А	A	А
Varnish	D	A	А
Vegetable Juice	А	N/A	N/A
Vinegar	А	А	В
Water, Deionized	В	А	А
Water, Distilled	А	Α	А
Water, Fresh	А	Α	А
Water, Salt	А	Α	А
Weed Killers	N/A	C	N/A
Whiskey and Wines	А	A	А
Xylene (Xylol, Dimethylbenzene)	D	В	А
Zinc Chloride, 10%	Α	А	А