

Cole-Parmer® Hose Barb Fittings Cleanroom Y

Cole-Parmer®



Easily combine or split fluid flow using Y fittings. A single barb on each end of the fitting creates a tight seal to keep the tubing in place. An anti-rotation device on each port prevents tubing from rotating, minimizing kinks. Unlike tee unions with sharper angles, the gentler angles of Y unions minimize turbulence and pressure drop, making them ideal for critical flow applications.

Y unions feature three hose barbs that fit the same tubing inner diameter (ID). Reducer Y fittings feature one large hose barb and two small hose barbs.

Fittings are available in standard or cleanroom packed options. Cleanroom packed fittings are manufactured, double bagged, and sealed in an ISO Class 7 cleanroom to ensure that the integrity is not compromised. An ISO Class 7 cleanroom utilizes HEPA filtration systems to maintain air cleanliness levels of less than 10,000 particles of 0.5 µm or larger per cubic foot.

APPLICATIONS

- Fluid routing and splitting, peristaltic pump systems, and general lab applications
- General-purpose, laboratory, and single-use applications

FEATURES/BENEFITS

- Single barb design tightly “grips” the tubing
- Quick and easy assembly without tools
- Easily split or combine flow paths



CERTIFICATION

Cole-Parmer will provide a certificate of compliance FREE at your request where applicable.

WARNING: This product is not approved or intended for, and should not be used for, medical, clinical, surgical, or other patient-oriented applications.

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India	+1.800.266.1244	All others	+1.847.549.7600

Cole-Parmer®
coleparmer.com

*Inquiries from Germany and France are now handled in our St. Neots office by native-speaking experts.

Materials

PVDF (Kynar®)

- Excellent chemical resistance
- Temperature range: -35 to 135 °C (-31 to 275 °F)
- Sterilize by ethylene oxide (EtO) or autoclave

Its trade name, Kynar, often refers to PVDF (polyvinylidene fluoride). PVDF is a high-purity engineering thermoplastic with excellent chemical resistance, abrasion resistance, flame resistance, and UV stability. PVDF is widely used for chemical tank liners and semiconductor equipment components.

Polypropylene (PP)

- Very good chemical resistance
- Temperature range: -23 to 66 °C (-9 to 150 °F)
- Sterilize by ethylene oxide (EtO) or gamma irradiation

Polypropylene is resistant to weak inorganic acids, organic acids, alcohols, ammonia, and oxidizing salts and has limited resistance to aliphatic hydrocarbons, esters, ketones, and ethers. Polypropylene is generally not recommended for aromatic and halogenated hydrocarbons.

Nylon

- Good chemical resistance
- Temperature range: -46 to 121 °C (-50 to 250 °F)
- Sterilize by ethylene oxide (EtO)

Nylon is resistant to various chemicals, especially aliphatic and aromatic hydrocarbons, alkalis, greases, fuels, lubricants, and ketones. These nylon fittings are made from the same resin as natural nylon, but with FDA-compliant white coloring. They offer good tensile strength, stiffness, and impact resistance.

Polycarbonate (PC)

- Very good chemical resistance
- Sterilize by ethylene oxide (EtO) or gamma irradiation

Polycarbonate offers very good chemical resistance to many aqueous solutions, diluted acids, alcohols, and non-aromatic hydrocarbons while maintaining excellent clarity and impact strength. Polycarbonate is well suited for applications requiring durability, dimensional stability, and visual inspection of flow paths.

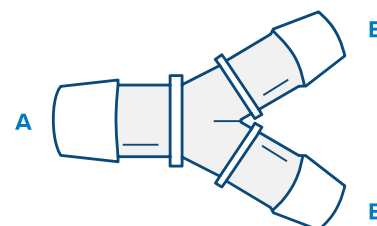
High-Density Polyethylene (HDPE)

- Excellent chemical resistance

HDPE is softer than nylon, polypropylene, and PVDF. It exhibits excellent resistance to chemicals but has lower thermal resistance than other materials.

Fittings

For additional options and complete offering, visit coleparmer.com.



Specification and Ordering Table

Fitting Type	Tubing ID (A)	Tubing ID (B)	Cleanroom Packed	Material	Color	Item Number	Pack Size
Union	1/16"	1/16"	Y	Nylon	White	50111-28	10
	1/16"	1/16"	Y	PVDF	Natural	50111-29	10
	1/16"	1/16"	Y	Polypropylene	Translucent	50111-30	10
	1/16"	1/16"	N	Polycarbonate	Transparent	50140-47	10
	3/32"	3/32"	Y	Nylon	White	50111-18	10
	3/32"	3/32"	Y	PVDF	Natural	50111-19	10
	3/32"	3/32"	Y	Polypropylene	Translucent	50111-20	10
	3/32"	3/32"	N	Polycarbonate	Transparent	50140-48	10
	1/8"	1/8"	Y	Nylon	White	50111-33	10
	1/8"	1/8"	Y	PVDF	Natural	50111-34	10
	1/8"	1/8"	Y	Polypropylene	Translucent	50111-35	10
	1/8"	1/8"	N	Polycarbonate	Transparent	50140-49	10
	5/32"	5/32"	Y	PVDF	Natural	50111-31	10
	5/32"	5/32"	Y	Polypropylene	Translucent	50111-32	10
	5/32"	5/32"	N	Polycarbonate	Transparent	50140-50	10
	3/16"	3/16"	Y	Nylon	White	50111-37	10
	3/16"	3/16"	Y	PVDF	Natural	50111-38	10
	3/16"	3/16"	Y	Polypropylene	Translucent	50111-39	10
	3/16"	3/16"	N	Polycarbonate	Transparent	50140-51	10
	3/16"	3/16"	Y	HDPE	White	50111-36	10
	1/4"	1/4"	Y	Nylon	White	50111-40	10
	1/4"	1/4"	Y	PVDF	Natural	50111-41	10
	1/4"	1/4"	Y	Polypropylene	Translucent	50111-42	10
	1/4"	1/4"	N	Polycarbonate	Transparent	50140-52	10
	5/16"	5/16"	Y	Nylon	Natural	50111-44	10
	5/16"	5/16"	Y	PVDF	Natural	50111-43	10
	5/16"	5/16"	Y	Polypropylene	Translucent	50111-45	10
	3/8"	3/8"	Y	Nylon	White	50111-46	10
	3/8"	3/8"	Y	Nylon	Natural	50111-48	10
	3/8"	3/8"	Y	PVDF	Natural	50111-47	10
	3/8"	3/8"	Y	Polypropylene	Translucent	50111-49	10
	3/8"	3/8"	N	Polycarbonate	Transparent	50140-53	10
1/2"	1/2"	Y	Nylon	White	50111-51	10	
1/2"	1/2"	Y	PVDF	Natural	50111-52	10	
1/2"	1/2"	Y	Polypropylene	Translucent	50111-53	10	
1/2"	1/2"	Y	HDPE	White	50111-50	10	

Fitting Type	Tubing ID (A)	Tubing ID (B)	Cleanroom Packed	Material	Color	Item Number	Pack Size
Union	5/8"	5/8"	Y	Nylon	White	50111-21	10
	5/8"	5/8"	Y	PVDF	Natural	50111-22	10
	5/8"	5/8"	Y	Polypropylene	Translucent	50111-23	10
	3/4"	3/4"	Y	PVDF	Natural	50111-24	10
	3/4"	3/4"	Y	Polypropylene	Translucent	50111-25	10
	1"	1"	Y	PVDF	Natural	50111-26	10
	1"	1"	Y	Polypropylene	Translucent	50111-27	10
Reducer	1/4"	1/8"	Y	PVDF	Natural	50114-97	10
	1/4"	1/8"	Y	Polypropylene	Translucent	50114-77	10
	5/16"	3/16"	Y	PVDF	Natural	50114-99	10
	5/16"	3/16"	Y	Polypropylene	Translucent	50114-79	10
	3/8"	1/4"	Y	PVDF	Natural	50115-01	10
	3/8"	1/4"	Y	Polypropylene	Translucent	50114-81	10
	1/2"	3/8"	Y	PVDF	Natural	50115-03	10
	1/2"	3/8"	Y	Polypropylene	Translucent	50114-83	10
	5/8"	1/2"	Y	PVDF	Natural	50115-05	10
	5/8"	1/2"	Y	Polypropylene	Translucent	50114-85	10
	3/4"	5/8"	Y	PVDF	Natural	50114-93	10
	3/4"	5/8"	Y	Polypropylene	Translucent	50114-73	10
	1"	3/4"	Y	PVDF	Natural	50114-95	10
	1"	3/4"	Y	Polypropylene	Translucent	50114-75	10