# TUBING KIT COMPARISON GUIDE

**A quick guide to comparing and selecting key tubing formulations from Cole-Parmer.**

Cole-Parmer®

Simplify tubing evaluation and selection. Use this guide to compare critical material data and choose the right tubing formulation.

Reduce trial-and-error

Ensure compliance for regulated processes

Avoid costly tubing failure

Optimize tubing service life

Need help selecting the right tubing? Access these helpful tools to qualify alternatives and ensure system compatibility.

**Tubing Selector Tool**
Filter by formulation, material, and size requirements side-by-side
coleparmer.com/tubing-selector-tool

**Tubing Compatibility Database**
Compare how chemicals interact with tubing materials
coleparmer.com/tubing-chemical-compatibility

| Tubing Formulation | Characteristics | Compatibility* | | | | | Temperature Range | Compliance | Sterilization | Durometer |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Acids | Alkalies | Organic Solvents | Hydrocarbons/ Oils | Pressure | | | | |
| Cole-Parmer Platinum-Cured Silicone Tubing, 50 Shore A  | • Tasteless and odorless to maintain fluid integrity<br>• Low hysteresis and long service life in peristaltic pumps<br>• Cleanroom packed and double bagged | C | B | C | D | D | −73 to 204 °C (−100 to 400 °F) | • USP Class VI<br>• USP <88><br>• FDA 21 CFR 177.2600<br>• ADIF | • Autoclave<br>• Chemical sterilants<br>• Ethylene oxide (EtO)<br>• Gamma irradiation | 50A |
| Cole-Parmer Thermoplastic Elastomer (TPE) Tubing  | • Thermally weldable<br>• Excellent biocompatibility with ultra-low extractables and leachables<br>• Low gas and oxygen permeability | C | C | D | D | C | −80 to 135 °C (−112 to 275 °F) | • USP Class VI<br>• USP <661><br>• FDA 21 CFR 177.2600<br>• ADIF | • Autoclave<br>• Ethylene oxide (EtO)<br>• Gamma irradiation | 68A |
| Cole-Parmer Thermoplastic Vulcanizate (TPV) Pharma Grade Tubing  | • Biocompatible, tasteless, and odorless<br>• Great chemical and kink resistance for pump performance<br>• Cleanroom packed and double bagged | C | B | B | D | C | −59 to 204 °C (−75 to 400 °F) | • USP Class VI<br>• USP <661.2><br>• USP <788><br>• FDA 21 CFR 177.2600<br>• BSE/TSE-Free<br>• PFA-Free | • Autoclave<br>• Chemical sterilants<br>• Gamma irradiation | 68A |

*A = Excellent | B = Good | C = Fair | D = Severe effect; not recommended

| Tubing Formulation | Characteristics | Compatibility* | | | | | Temperature Range | Compliance | Sterilization | Durometer |
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| | | Acids | Alkalies | Organic Solvents | Hydrocarbons/ Oils | Pressure | | | | |
| Cole-Parmer Food, Milk, and Dairy Tubing  | • Smooth, nonporous bore inhibits particle entrapment<br>• Nontoxic, tasteless, and odorless<br>• Compatible with harsh cleaners and commonly used sanitizers | B | B | D | D | B | −44 to 74 °C (−47 to 165 °F) | • FDA 21 CFR<br>• 3-A | Gamma irradiation | 65A |
| Cole-Parmer Black TPE Tubing  | • Resistant to light, ozone, and weathering<br>• Excellent flexural fatigue and abrasion resistance for long pumping life<br>• Great alternative to neoprene, EPDM, and rubber tubing | A | A | C | D | D | −60 to 135 °C (−75 to 275 °F) | — | — | 61A |
| Cole-Parmer PVC Lab and Vacuum Tubing  | • Smooth, polished inner wall prevents buildups<br>• Broad chemical resistance for versatile lab applications<br>• Excellent alternative to latex and silicone tubing | B | B | D | D | B | −48 to 368 °C (−54.4 to 695 °F) | — | Autoclave | 55A |
| Cole-Parmer PVC Fuel and Lubricant Tubing  | • Formulated to transfer hydrocarbons and petrochemicals<br>• Resistant to swelling, hardening, and cracking<br>• Low gas permeability | C | C | D | B | B | −37 to 75 °C (−35 to 165 °F) | — | — | 57A |
| Cole-Parmer Peroxide-Cured Silicone Tubing  | • Smooth bore, nontoxic, and odorless<br>• Enhanced mechanical strength and long shelf life<br>• Exhibits good ozone, UV, and abrasion resistance | D | C | D | D | D | −56 to 204 °C (−70 to 400 °F) | • USP Class VI<br>• ADCF | Autoclave | 60A |
| Cole-Parmer PTFE Tubing  | • Chemically inert and resistant to nearly all chemicals and solvents<br>• Lowest friction coefficient for effortless fluid transfer<br>• Excellent electrical properties and low permeability | A | A | A | A | A | −201 to 260 °C (−330 to 500 °F) | • USP Class VI<br>• FDA 21 CFR 177.1550<br>• ADIF | • Autoclave<br>• Chemical sterilants<br>• Ethylene oxide (EtO) | 60D |
| Eldon James Reinforced Thermoplastic Elastomer (TPE) Tubing  | • Engineered for high-purity fluid transfer under pressure<br>• Thermally weldable<br>• Low gas and oxygen permeability | C | C | D | D | A | −80 to 135 °C (−112 to 275 °F) | • USP Class VI<br>• USP <661><br>• FDA 21 CFR 177.2600<br>• ADIF | • Autoclave<br>• Ethylene oxide (EtO)<br>• Gamma irradiation | 68A |

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