Tubing Options

Tygon® standard

- **Application:** For standard applications
- **Features:**
  - Non-toxic, non-oxidizing
  - Good resistance to acids, bases and inorganic media
  - Very low gas permeability, good performance life
- **Material:** Thermoplastic soft PVC, transparent
- **Complies with the standards:** FDA (21 CFR 177.2601) and GLP
- **Temperature range:** –50 to +75 °C
- **Sterilization:** Can be autoclaved for 30 min at 1 bar and 120 °C (material may change color) or with ethylene oxide
- **Restriction:** Segregation of plasticizers is possible

Tygon® 2001
for food

- **Application:** Food industry, well-suited to products with high fat content
- **Features:**
  - Extremely chemical-resistant; e. g. appropriate for the use of polar solvents
  - Plasticizer- and oil-free
  - Superior flex life in peristaltic pumps
  - Translucent to aid visual inspection
  - Outstanding flexibility
- **Material:** Thermoplastic tube, transparent
- **Complies with the standards:** USP Class VI, FDA (21 CFR 177.2600) and GLP
- **Temperature range:** –78 °C to +71 °C
- **Sterilization:** Can be autoclaved for 30 min at 1 bar, sterilized by irradiation or with ethylene oxide

Tygon®
for hydrocarbons

- **Application:** Especially for hydrocarbons, mineral oil products and distillates
- **Features:**
  - Ideal for petrol, kerosene, heating oil, cutting solutions and coolants on a glycol base
  - Resistant to ozone and UV
- **Material:** Thermoplastic soft PVC, translucent yellow
- **Complies with the standards:** GLP conform
- **Temperature range:** –40 to +75 °C
- **Sterilization:** Sterilization is not recommended
- **Restriction:** Not suitable for concentrated acids, lyes, food and pharmaceutics

Use with	Tygon® standard	Tygon® 2001 for food	Tygon® for hydrocarbons	PharMed®	Silicone	Viton®
Acids	good	excellent	good	good	conditional	excellent
Lyes	good	excellent	good	good	conditional	excellent
Solvents	unsuitable	good	conditional	unsuitable	unsuitable	varies; tests recommended
Pressure	good	good	good	good	satisfactory	good
Vacuum	good	good	good	excellent	good	good
Viscous media	excellent	good	excellent	good	satisfactory	good
Sterile media	conditional	good	conditional	excellent	excellent	satisfactory

PharMed®

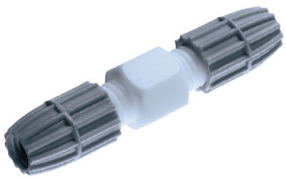
- **Application:** Ideal for medical, lab and research uses
  Features:
  – High fatigue strength under repeated reversed bending stresses
  – Non-toxic, biocompatible
  – Very low gas permeability
  – Well suited to acids and bases
- **Material:** Thermoplastic elastomer on a polypropylene base with plasticizers; excellent tensile strength; opaque
- **Complies with the standards:** FDA (21 CFR 177.2600), USP Class VI, GLP, USP and Ph. Eur.
- **Temperature range:** –51 to +135 °C
- **Sterilization:** Can be autoclaved or sterilized with ethylene oxide or sterilized by irradiation
- **Restriction:** Additives may migrate

Silicone

- **Application:** Platinum-coated silicone hose for use in pharmaceuticals and biology
  Features:
  – Extremely smooth interior prevents bacterial growth
  – Biocompatible, minimal adsorption and absorption
  – Best flow properties, high temperature stability
  – Absolutely inert, softener-free
- **Material:** Polydimethylsiloxane with siliceous earth and silicone additives; excellent resistance to initial pressure; translucent white
- **Complies with the standards:** USP Class VI, FDA, meets GLP and NSF
- **Temperature range:** –80 to +200 °C
- **Sterilization:** Can be autoclaved for 30 min at 1 bar or sterilized by irradiation
- **Restriction:** Not suitable for concentrated solvents, oils, acids or dilute caustic soda; relatively high permeability to gas

Viton®

- **Application:** Excellent acid resistance at high temperatures
  Features:
  – Low gas permeability
  – Resistant to solvents and corrosives at high temperatures
- **Material:** Fluorocarbon rubber, thermoformed Viton B (67% fluorinated); opaque black
- **Complies with the standards:** GLP conform
- **Temperature range:** –30 to +205 °C
- **Sterilization:** 16 hours at +250 °C with hot air circulation recommended
- **Restriction:** Limited performance life



Fitting for extension tubes
P/N 526 - 22000 - 00

Increase of flow diameter.
Individual for hose sizes from
0.2 to 2.8 mm.