Seven standard tubing configurations,
with and without braided shielding and jacketing

- **Lightweight, flexible helical polymer-core materials and easy to install fittings, transitions and adapters**
- **ETFE, FEP, PFA, PTFE, and PEEK plus AS81914 /1 – 11 qualified materials and configurations**
- **Choice of turnkey, factory-terminated assemblies or user-installable configurations**
- **All popular part numbers in stock and ready for same-day shipment**

AS81914 qualified Series 74 high-performance helical convoluted tubing, backshells, fittings and assemblies

Outstanding mechanical wire protection and lubricity for non-environmental and non-EMI/RFI applications

Helical plastic convoluted tubing , available in a choice of 5 materials. Choose standard black or clear color.

Adds EMI/RFI braided shielding for use in non-environmental applications

Helical plastic convoluted tubing, available in a choice of 5 materials, with a single braided shield for EMI/RFI protection.

Adds a second layer of high dB EMI/RFI shielding for use in non-environmental applications

Helical plastic convoluted tubing, available in a choice of 5 materials, with double braided shield for high frequency shielding applications.

A jacketed configuration with one EMI/RFI shield for use in environmental applications

Helical plastic convoluted tubing, available in a choice of 5 materials, with braided shielding for EMI/RFI protection and a ruggedized jacket for environmental protection.

Double-braided and jacketed configuration for environmental and high dB EMI/RFI shielding protection

Helical plastic convoluted tubing, available in a choice of 5 materials with double shielding and jacket for optimum EMI/RFI protection and environmental sealing.

For environmental applications without EMI shielding requirements

Helical convoluted tubing in choice of 5 materials with a ruggedized jacket for environmental protection.

Internal braid configuration for harsh chemical environment applications, with EMI/RFI shielding

Chemical- and UV-resistant plastic conduit tubing with internal braid for weight savings and harsh-environment EMI/RFI protection.

SERIES 74 / AS81914
Helical Polymer-Core Conduit Systems

Series 74 Convoluted Tubing Material Choices		
E	ETFE (fluoropolymer) (Series 74 standard)	Highest tensile strength and lubricity. Combines mechanical toughness with outstanding chemical, dielectric and thermal properties, improved radiation resistance. This is our standard material for a reason: ETFE delivers the best performance and best value in high-performance polymer resins.
F	FEP	Economical with relatively high thermal stability, excellent dielectric properties. Unaffected by virtually all solvents and chemicals, good adhesion resistance.
P	PFA (Fluoropolymer)	Outstanding lubricity and resistance to corrosives, -95°F to 500°F temperature rating. Melt-extruded for better cold flow and long-term sealing than PTFE; more economical.
T	PTFE (Fluoropolymer)	Outstanding resistance to corrosives, -95°F to 500°F temperature rating. Somewhat better folding endurance than PFA. However, this paste-extruded Fluoropolymer® material is more difficult to process and so costs more than PFA with virtually equal performance.
K	PEEK	Low-smoke, zero-halogen with high strength and superior crush resistance. Lightest weight of all the tubing polymers, but also the highest material cost.

Series 74 Convoluted Tubing Material Properties					
Material Property	**Perfluoroalkoxy (PFA)**	**Fluorinated Ethylene Propylene (FEP)**	**Ethylene Tetrafluoroethylene (ETFE)**	**Polytetrafluoroethylene (PTFE)**	**Polyether Ketone (PEEK)**
Service Temperature	-95°F/500°F (-71°C/260°C)	-95°F/400°F (-71°C/204°C)	-65°F/310°F (-54°C/154°C)	-95°/500°F (-71°C/260°C)	-76°F/392°F (-60°C/200°C)
Tensile Strength	3,000 PSI (20,684 KP)	2,500 PSI (17,237 KP)	5,000 PSI (34,474 KP)	2,500 PSI (17,237 KP)	7,000 PSI (48,300 KP)
Elongation	250%	200%	100%	175%	100%
Specific Gravity	2.15	2.15	1.70	2.15	1.26
Heat Aging	2000 Hrs.@ 525°F (274°C)	2000 Hrs.@ 430°F (221°C)	2000 Hrs.@ 350°F (177°C)	2000 Hrs. @ 525°F (274°C)	2,000 Hrs. @ 464°F (240°C)
Dielectric Strength	12,000V	12,000V	12,000V	12,000V	12,000V
Volume Resistivity	1018	1018	1016	1018	1016
Water Absorption	0.03%	0.01%	0.02%	0.01%	0.03%
Solvent Resistance	No swelling, stickiness or weight change				
Flammability	Non-burning				
Fungus Resistance	Does not support fungus growth				

SERIES 74 CONVOLUTED TUBING PRODUCT SELECTION GUIDE

Helical Convoluted Tubing

Factory Terminated Assemblies

Swivel-joint circular connector backshell

Easy Assembly Hat Trick System

Super Durable Internal Braid System

Ultra Lightweight Composite Hummer Nut System

