## **JACKETING OPTIONS FOR FIBEROPTIC CABLES**

**Standard** - A PVC jacket over a flat steel ribbon monocoil is the standard cable sheathing, which is an excellent combination for general purpose usage.

**Alternatives** - Other cable sheathings are available for special applications. Interlocking Stainless Steel, Option C1, is the most popular alternative sheathing, providing the highest temperature capability and maximum crush resistance with good flexibility. It is also a good choice for high vacuum and cryogenic applications.

CODE	MATERIALS	TEMP RANGE	FEATURES
none	PVC over Steel Monocoil	+10 to +107 C	Good general purpose, moderate crush resistance, moderate tensile strength
C1	Interlocking Stainless Steel	-150 to +800 C	Maximum strength & temperature range, good flexibility
C2	Silicone Rubber only	-62 to +232 C	Maximim flexibility, no crush resistance, no tensile strength
C3	Silicone over Nylon Wrap	-62 to +232 C	2 meter max. length, light crush resistance, non-metallic
C4	Corrugated Nylon	-40 to +104 C	Semi-crush proof, flexible, liquid tight, MRI compatible, long lengths OK, available with O.D. size Ø 16 mm or larger
C5	PTFE over SS Interlok	-150 to +260 C	Provides vapor barrier protection, poor flexibility
C5i	SS Interlok over PTFE	-150 to +260 C	Smaller and more flexible than C5, fluids can penetrate SS
C6	PVC over Nylon Wrap	+10 to +107 C	Good for long lengths, light crush resistance, non-metallic
C7	PTFE	-150 to +260 C	MRI and vacuum compatible, poor flexibility. Clear PTFE is available in a wide range of sizes. Opaque PTFE is available in limited sizes
C8	PVC	+10 to +107 C	Small lightweight, very flexible, liquid tight, MRI compatible, not crush proof. Good for long lengths
C9	Annealed SS Tubing	-150 to +800 C	Semi-rigid, liquid tight, crush proof. Good for high temperature, high pressure, high vibration environments
C10	Silicone Over SS Interlok	-62 to +232 C	Flexible, liquid tight, crush proof
C11	Polyolefin Shrink Tubing	-55 to +300 C	Semi-Flexible, liquid tight, thin wall vapor barrier, not crush proof. MRI, BIO and vacuum compatible, radiation resistant.
C12	Polyolefin Over SS Interlok	-55 to +300 C	Crush proof, semi-flexible, liquid tight, thin wall vapor barrier, vacuum compatible.
C13	Furcation Tubing	+10 to +85 C	PVC over Kevlar over PTFE. Standard in the telecom industry because of the Kevlar members which prevent stretching. Ideal for small fiber sensors, D20 or RC20 and smaller. MRI compatible and liquid tight. Light crush resistance
C14	Braided Stainless Steel	-53 to +204 C	Semi-flexible, liquid tight, crush proof. Good for high pressure applications. Available O.D. sizes 0.312" (with 2" bend radius) and larger.
C15	Aluminum Flexible Hose	-55 to +300 C	Semi-Flexible and crush proof. Available O.D. sizes 0.51" (with 4" bend radius) and larger.



#### STANDARD - PVC over Steel Monocoil



PVC over a steel helical winding. Good general purpose jacket: moderate crush resistance, liquid tight, not MRI compatible.

Temperature Range +10 to 107°C

### Option C1 - Interlocking Stainless Steel



Maximum strength and temperature range, crush proof, flexible, vacuum compatible. Good for long lengths.

Temperature Range -150 to 800°C

#### Option C2 - Silicone Tubing



Maximum flexibility, no crush resistance, no tensile strength. MRI and Bio-compatible, liquid tight.

Temperature Range -62 to +232°C

# Option C3 - Silicone over Nylon Wrap



Light crush resistance, moderate flexibility, no tensile strength. MRI and Bio-compatible, liquid tight. Good for short lengths only (<2 m).

Temperature Range -62 to +232°C



### ■ Option C4 - Corrugated Nylon



Semi-crush-proof, flexible, liquid tight, MRI compatible. Good for long lengths. Available only with Ø 16 mm O.D. or larger.

Temperature Range -40 to +104°C

### Option C5 - PTFE over SS Interlok



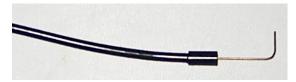
Crush-proof, liquid tight vapor barrier protection, very poor flexibility.

Temperature Range from -150 to +260°C

### Option C5i - SS Interlok over PTFE

With PTFE inside the SS interlok, the jacket has a smaller diameter and is more flexible. Liquids can penetrate the SS interlok.

### Option C6 - PVC over Nylon Wrap



Semi-crush-proof, liquid tight, MRI compatible, poor flexibility.

Temperature Range from +10 to +107°C

## Option C7 - PTFE



Temperature Range from -150 to +260°C



### Option C8 - PVC - Polyvinyl Chloride



Small lightweight, very flexible, liquid tight, MRI compatible, not crush proof. Good for long lengths

Temperature Range +10 to 107°C

### Option C9 - Annealed Stainless Steel Tubing



Semi-rigid, liquid tight, crush proof. Good for high temperature, high pressure, high vibration environments.

Temperature Range to 800°C

### Option C10 - Silicone over Interlocking SS



Flexible, liquid tight, crush proof.

Temperature Range -62 to +232°C

### Option C11 - Polyolefin Shrink Tubing



Semi-Flexible, liquid tight, thin wall vapor barrier, not crush proof. MRI, BIO and vacuum compatible, radiation resistant.

Temperature Range -55 to +300°C



### Option C12 - Polyolefin over SS Interlok



Crush proof, semi-flexible, liquid tight, thin wall vapor barrier, vacuum compatible.

Temperature Range -55 to +300°C

#### Option C13 - Furcation Tubing



PVC over Kevlar over PTFE. Standard in the telecom industry because of the Kevlar members which prevent stretching. Ideal for small fiber sensors, D20 or RC20 and smaller. MRI compatible and liquid tight. Light crush resistance.

Temperature Range +10 to 85°C

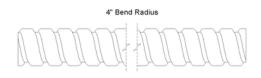
### Option C14 - Braided SS over PTFE



Semi-flexible, liquid tight, crush proof. Good for high pressure applications. Available O.D. sizes 0.312" (with 2" bend radius) and larger.

Temperature Range -53 to +204°C

### Option C15 - Aluminum Flexible Conduit



Semi-Flexible and crush proof. Available O.D. sizes 0.51" (with 4" bend radius) and larger.

Temperature Range -55 to +300°C

