ZITHA TECH SPECIALTY CABLES (Pty) Ltd

Low-Temperature Installation Solution for Syrian Fiber Optic Heat Shrink Tubing



Overview

Low Temperature Heat Shrink Tubing: Specifications for Cold Climate. Low temperature heat shrink tubing is optimized to shrink at lower temperatures (90.

Key Takeaways

Use low-temperature cross-linked polyolefin or modified polyolefin heat shrink tubing with adhesive layers, designed to maintain flexibility and sealing performance down to -55°C.Recommended Tubing Materials

For cold climate applications, low-temperature heat shrink tubing is typically made from cross-linked polyethylene (XLPE) or modified polyolefin blends. These materials retain flexibility, impact resistance, and mechanical integrity even at sub-zero temperatures, preventing brittleness and cracking during installation . For highly demanding chemical or thermal environments, fluoropolymer options such as PFA or FEP can operate continuously from -200°C to +200°C .

Adhesive and Sealing Properties

Dual-wall tubing with a hot-melt adhesive inner layer is recommended. The adhesive remains tacky in sub-zero conditions, forming a hermetic seal around the fiber splice. This ensures long-term protection against moisture, dust, and environmental stress while maintaining optical transmission performance .

Installation Temperature

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Low-temperature heat shrink tubing designed for fiber optics can shrink at temperatures as low as 65°C, completing shrinkage around 95°C. This is particularly important for temperature-sensitive fiber optic components, reducing the risk of thermal damage during installation . Standard low-temperature fiber optic splice sleeves typically operate safely from -55°C to +100°C, providing reliable performance in harsh climates .

Fiber Optic Compatibility

Fiber optic heat shrink tubes are designed to rebuild the coating of the fiber, providing mechanical strength at the fusion joint while preserving optical transmission. They often include a reinforcing rod (stainless steel, quartz, or ceramic) and a clear fusion tubing liner for visual inspection during installation . Both single fiber and ribbon fiber designs are available, and custom solutions can be provided to match specific splice requirements.

Installation Tips
• Preheat the tubing gradually using a controlled heat source to avoid fiber damage.

• Ensure proper alignment of the fiber splice within the tubing before shrinking.

• Apply heat evenly along the tubing to achieve uniform shrinkage and adhesive activation.

• Inspect the splice visually through transparent tubing to confirm proper sealing and mechanical support.
Summary

For Syrian fiber optic installations in low-temperature environments, the optimal solution is cross-linked polyolefin or modified polyolefin heat shrink tubing with adhesive layers, capable of shrinking at low temperatures (65–95°C) and performing reliably down to -55°C. This approach ensures mechanical strength, optical integrity, and environmental protection while minimizing installation risks .

Article Content

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Low temperature heat shrink tubing is optimized to shrink at lower temperatures (90-130°C), which is advantageous

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Whether you need electrical insulating tubing, wire harness tubing, heat shrink cable accessories, or other electrical application

LSTT Low Temperature Heat Shrink Tubing

LSTT is a highly flexible, low-temperature heat shrink tubing. Its low shrink temperature not only offers ultra

ADW

It''s a heavy wall heat shrinkable tubing with inner spiral polyamide hot melt adhesive coated. The outer heavy wall can provide

FOSP

The product consists of a reinforced 304 stainless steel rod or a ceramic rod, a hot fusion tube and a cross-linked polyolefin tubing. It

Ultra-Thin Wall and Low Shrink Temperature Heat

When you need a lower heat shrink temperature than PVC heat shrink tubing, as well as the ability to work

Optical Fiber Heat Shrink Tube | Fiber Optic Heat Shrink Splice

A specially designed cross-linked Clear Heat Shrinkable tubing, with Clear fusion tubing liner, providing protection to fiber optical

40mm Clear PE Heat Shrinkable Tube Fiber Optical

Consist of a rod of reinforcing the splice, heat fusion tubing and cross-linked polyolefin, to provide

Splice Sleeves

We would like to show you a description here but the site won''t allow us.

100pcs Clear Fiber Fusion Splice Sleeve Kit, 2.6mm 60mm

The fiber optic heat shrink tubes is tight and the metal support maintains its strength to prevent the fiber from breaking at the splice.

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Heat-Shrinkable Tubes for Fiber Optical Splice Closure

RSY heat-shrinkable tubes are used to seal Fiber optic splice closure. The lined coating or spiral coating inside

Tip for inserting optical fiber into heat shrink tubing ...

#fcst #ftth #fttx #fiberoptics #network #heatshrinktube #fibersplice #fusionspliceprotectionsleeve Tip for inserting

500pcs Dia 5mm 60mm Length Fiber Heat Shrink tubing fibers

□Protect Fiber Fusion Points□Clear sleeve make it easy to detect splice before shrinkage,The fiber heat shrink

TE Connectivity

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cold weather affect fiber optic cables and connectors

When the temperature drops, the water freezes, and ice forms around the fiber – with the large resulting forces causing the fiber to

Heat Shrink Kits

CommScope offers a number of premier weatherproofing options such as our Heat shrink kits for outside

Fiber Optic Heat Shrinkable Splice Tube-Broalink

Fiber Optic Heat Shrinkable Splice Tube Protect Fiber Fusion Points: Clear sleeve makes it easy to detect splice before shrinkage,

Specialty Heat Shrink Tubing

Our special-purpose tubing is available in a variety of materials, colors, shrink ratios, and sizes. Compliant with international

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Heat shrink tubing is a type of protective tubing that activates and shrinks when heat is applied. Ideal for

How To Use Heat Shrink Tubing Tutorial

I demonstrate how to use heat shrink tubing on a butt connector and with a heat gun. I

Heat Shrink Tubing for Cable Insulation & Protection | Various Sizes

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Heat shrink tubing is a versatile solution used for insulation, protection, and strain relief for cables, connectors, and other

FOSP

FOSP - Heat Shrinkable Fiber Optic Splice Protector Applications The product consists of a reinforced 304 stainless steel rod or a

Fiber Optic Closure Heat Shrink Tube – Maxwel

Heat Shrink Tube for fiber optic closure is made from heavy wall cross-linked polyolefin, coated with spiral polyamide adhesive inside

Fiber optic cable protection

Examples include fiber optic cabling, network construction, last-mile and middle-mile applications,

Mastering Heat Shrink Tubing: Essential Guide to Applications ...

Heat shrink tubing is a versatile solution used across various industries for numerous applications. Learn more from the wiring experts.

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Our heat shrink equipment seals and protects electrical splices and provides mechanical protection for fluid management systems in

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