

Flowchart of Optical Cable Sheath Forming Process



Summary of Content

The optical cable sheath forming process involves extruding a protective polymer layer around the optical fiber core, followed by precise cooling, sizing, and quality control to ensure uniformity and durability.

Step 1: Preparing the Cable Core

The process begins with the optical fiber core, which may include multiple fibers and strength members. The core is carefully guided through a cable core guiding device, ensuring proper alignment and tension before entering the extrusion stage. This step is critical to prevent fiber damage and maintain consistent geometry during sheath formation .

Step 2: Extrusion of the Sheath

A plastic extruding machine melts polymer granules (commonly polyethylene or PVC) and pushes the molten material through a die head surrounding the cable core. The die shapes the polymer into a continuous sheath around the fibers. The extrusion parameters, such as temperature, pressure, and speed, are precisely controlled to achieve the desired sheath thickness and uniformity .

Step 3: Internal Cooling

To prevent the cable core from adhering to the inner wall of the sheath, a cooling device is integrated within the cable core guiding system. This device circulates coolant around the core, maintaining a stable temperature and ensuring the polymer solidifies evenly without deforming the fibers.

Article Content

113161075 Cable sheath forming process and forming equipment

The forming equipment comprises a conveying device, a first sheath forming device, a cooling groove and a second sheath forming

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By means of the forming device precisely controlling the dimensions of an optical cable sheath of an embedded rigid reinforced

Flowchart of Optical Cable Sheath Construction Process

This document provides specifications for an optical cable sheath production line that can extrude inner and outer sheaths for optical

How Is Fiber Optic Cable Made? Full Manufacturing Process

Learn how fiber optic cable is made — from preform fabrication and fiber drawing to wire and cable extruder jacketing, stranding, and

WO/2019/196408 FORMING DEVICE AND FORMING PROCESS

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Exploring the Fiber Optic Cable Manufacturing Process

In short, the construction of fiber optic cables is a highly specialized and advanced level procedure. Each step,

Manufacturing

The packaged quartz optical fiber samples were subjected to gradient temperature rise annealing treatment in a tube furnace to

Fiber Optic Cable Manufacturing Process: How They Are Made

In this blog, we'll take a closer look at the step-by-step fiber optic cable manufacturing process, the materials used,

How Fiber Optic Cable Is Made: The Full Manufacturing Process

See exactly how fiber optic cable is manufactured, from preform and drawing to jacketing on a wire and cable sheath

Optical Cable Sheathing Production Line

This document provides specifications for an optical cable sheath production line that can extrude inner and outer sheaths for optical

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A forming device and a forming process for an optical cable sheath of an embedded rigid reinforced element.

Contact Us

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