

High Pressure Flexible PVC Layflat Water Hose for Farm Irrigation

Manufacturing Standards for High Pressure Flexible PVC Layflat Water Hose for Farm I

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1. Introduction

The High Pressure Flexible PVC Layflat Water Hose for Farm Irrigation is designed to meet the rigorous demands of agricultural applications. This document outlines the manufacturing standards to ensure the highest quality and performance of the product.

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2. Material Specifications

1. Brand Name: Renflex
2. Material: PVC & High Strength Polyester Fiber
3. Diameter Range: 1 inch to 16 inches
4. Length Options: 10m, 20m, 50m, 100m, 150m
5. Thickness Options: 1mm, 2mm, 3mm, 4mm, 5mm, 6mm
6. Color Options: Blue, Red, Orange, Yellow, Green, or Customized
7. Certification: RoHS, REACH, CE
8. Working Temperature: -5°C to +65°C
9. Working Pressure: 2 - 10 bar
10. Application: Agriculture, Mining, Construction Dewatering
11. Transporting Medium: Water, Oil, Powder
12. Features: Light, Durable, High Pressure, Long Time Working Life

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3. Manufacturing Process

1. Raw Material Inspection:

- Ensure PVC resin purity is at least 99.5%.
- Check physical properties like density (1.4 g/cm^3) and viscosity ($50\text{-}60 \text{ mPa}\cdot\text{s}$).

2. Extrusion and Coating Process:

- Extrusion temperature: $160\text{-}180^\circ\text{C}$, pressure: $3\text{-}5 \text{ MPa}$.
- Wall thickness: $2\text{-}4 \text{ mm}$.
- Diameter tolerance: $\pm 0.5 \text{ mm}$.

3. Reinforcement Layer Inspection:

- Tensile strength: at least 15 MPa .
- Adhesion strength: at least 3.0 N/mm .

4. Finished Product Inspection:

- Hydrostatic pressure test: 1.5 times working pressure for 5 minutes without leakage.
- Burst pressure: at least 3 times working pressure.
- Bend radius within specified limits without structural failure.

5. Visual and Manual Inspection:

- Check for surface defects, uniformity, and proper end finishing.

6. Final Quality Assurance:

- Random sampling for comprehensive quality checks.
- Compliance with ISO 9001 quality management system standards.

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4. Packaging Specifications

1. Roll Packaging:

- Small Sizes (1 inch to 4 inches): Rolled tightly, secured with plastic straps, wrapped in plastic film, and placed in cardboard boxes.
- Large Sizes (5 inches to 16 inches): Rolled, secured with heavy-duty straps, covered with plastic film, and palletized.

2. Pallet Packaging:

- Standard Pallet Dimensions: 1.2m x 1.0m.
- Pallets secured with stretch film and straps, stackable.

3. Labeling:

- Brand Name: Renflex
- Specification Details: Diameter, length, thickness
- Color and Customization Information
- Certification Marks: RoHS, REACH, CE
- Batch Number and Production Date

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5. Transportation

1. Domestic Shipping:

- Transported by trucks to distribution centers or directly to customers.
- Properly secured to prevent shifting and damage during transit.

2. International Shipping:

- Packaged hoses loaded into 20-foot or 40-foot shipping containers.
- Secured with blocking and bracing to prevent movement during sea transit.
- Shipping documents include certification copies (RoHS, REACH, CE) and product details for customs clearance.