

**PVC Pipe Transportation and Packaging Technical  
Specification  
2<sup>nd</sup> Edition**

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For information contact: LEDES, Sales Dep, Room 101, Building #1, No. 6

Hupan Road, Dalingshan town, Dongguan, Guandong Province, China



## ABOUT LEDES

Ledes is a leading global manufacturer designer of electrical conduit pipes and fittings. Ledes offers a complete line of electrical conduit and fittings, includes:

- **UL651 rigid PVC conduit, DB120 PVC conduit, UL1653 ENT, and fittings.**
- **CSA rigid PVC conduit, DB2/ES2 PVC conduit, ENT, and fittings.**
- **AS/NZS 2053 PVC conduit and fittings.**
- **Extremely UV resistant solar conduit and fittings.**
- **Low smoke halogen free conduit and fittings**

We honor environmentally friendly materials from all over the world, apply the most advanced production equipment and process technology, and customize manufacturing to meet the most requirement of specific global customers.

## 1. Introduction

This technical specification outlines best practices for the safe, efficient, and damage-free transportation and packaging of PVC (Polyvinyl Chloride) pipes. Adherence to these guidelines ensures product integrity throughout the supply chain, minimizing losses and maximizing customer satisfaction. This document is intended for use by product and logistics department, and distributors involved in handling, transporting, and delivering PVC pipes.

## 2. Scope

This specification covers all types of PVC pipes, including:

- \* SDR (Standard Dimension Ratio) pipes
- \* Schedule pipes
- \* Pressure pipes
- \* Corrugated pipes
- \* Flexible pipes

## 3. Packaging Materials

### 3.1 General:

The packaging materials used for PVC pipe transportation must be robust, weather-resistant, and compatible with the pipe material. They should protect against:

- **Mechanical damage (abrasion, impact)**
- **Environmental factors (moisture, temperature fluctuations, UV radiation)**
- **Chemical degradation**

### 3.2 Specific Materials:

#### **Shrink Wrap Film:**

Polyethylene shrink film is commonly used for bundling PVC pipes. It offers good protection against scratches and moisture.

#### **Corrugated Cardboard:**

Provides excellent cushioning and protection during stacking and handling.

#### **Stretch Wrapping:**

Provides added security when securing multiple bundled pipes together.

**Wooden Pallets:**

Used as the base for palletized pipe shipments, ensuring stability during transportation.

**3.3 Pallet Specifications:**

Wooden pallets should comply with industry standards (e.g., ISPM-15) and be constructed of durable hardwood treated against moisture and pests.

**4. Packaging Procedure****4.1 Bundling:**

PVC pipes should be bundled securely using shrink wrap film or other suitable methods to prevent shifting during transport.

**Pipe Lengths:** Bundles should contain manageable lengths for safe handling and minimize the risk of damage.

**Bundle Tightness:** Ensure the bundles are tightly secured to avoid gaps between pipes that could lead to movement.

**4.2 Pallet Loading:**

**Stacking Height:**

The maximum stacking height depends on pipe diameter, wall thickness, and pallet capacity. Consult load charts for specific guidance.

**Pipe Orientation:**

Pipes should be placed horizontally on pallets, with ends supported to prevent bending or cracking.

**Load Distribution:**

Distribute the weight evenly across the pallet surface for optimal stability.

**4.3 Labeling:**

Each bundle and pallet must be clearly labeled with:

**Product Description:** Type of PVC pipe (e.g., SDR 21, Schedule 40)

**Pipe Dimensions:** Diameter and length

**Quantity:** Number of pipes per bundle/pallet

**Handling Instructions:** "Fragile," "This way up," or other relevant markings

**Destination Address:** Clearly marked for efficient delivery

**5. Transportation Considerations****5.1 Vehicle Selection:**

Choose trucks and trailers suitable for the size and weight of the PVC pipe shipments. Ensure adequate floor space and secure tie-down points.

**5.2 Load Securement:**

Use appropriate straps or chains to securely fasten pipes to the vehicle's frame, preventing movement during transit.

### 5.3 Temperature Control:

**Extreme Temperatures:** For sensitive applications or regions with extreme temperatures, consider temperature-controlled transport to prevent warping or damage due to heat or cold.

**Data Logging:** Utilize temperature sensors and data loggers to monitor ambient temperature throughout the shipment journey, providing proof of compliance.

### 5.4 Route Planning:

Optimize routes to minimize transit time and avoid areas prone to traffic congestion or adverse weather conditions.

## 6. Case Studies & Data

**Study 1:** A major PVC pipe distributor implemented a standardized packaging protocol with shrink wrap bundling and wooden pallets, resulting in a 20% reduction in pipe damage claims during transportation.

**Study 2:** Using temperature-controlled trucks for sensitive PVC pipes transported across regions with extreme climates reduced product failures by 15%.

## 7. Further Information

The above information is believed to be correct at the time of writing but does not purport to be all inclusive and shall be used only as a guide. Following these best practices for PVC pipe transportation and packaging is essential for protecting product integrity, minimizing costs, and ensuring customer satisfaction.

If further information or clarification is needed to ensure that an appropriate assessment is made, then the user should contact this company. Our responsibility for the product as sold is subject to our standard terms and conditions.

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<https://www.ledestube.com/>

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 [www.ledestube.com](http://www.ledestube.com)

 [ledes@ledestube.com](mailto:ledes@ledestube.com)