

# Optical cables – storage and handling

This document does not replace the relevant rules or general or specific standards and regulations, the document contains the recommendation for the handling with the optical cables and its storage. The information applies to all types of the optical cables.

The likelihood of cable damage or personal injury when handling drums will be reduced following the storage and handling recommendations below.

Damage to the cable due to improper handling cannot only be visible but also hidden affecting the parameters of the cable. Hidden damage will only become apparent after the cable installation and often the only solution of the problem is to replace the cable.

Used symbols:



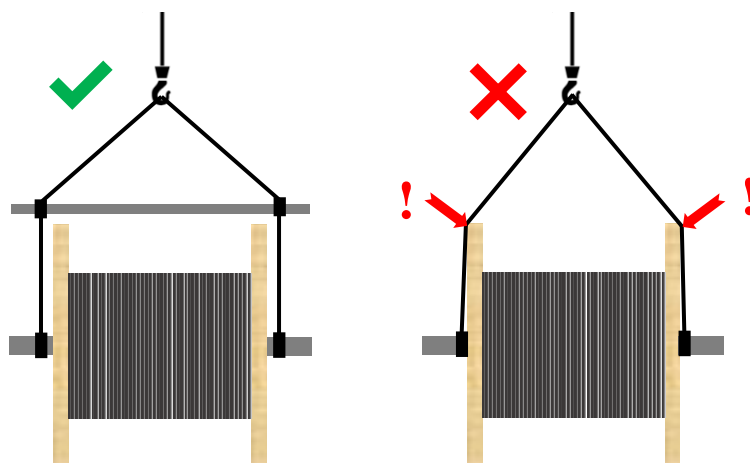
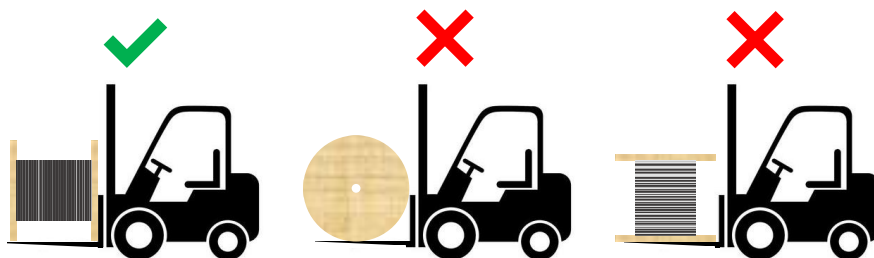
Recommended



Not recommended, there is a risk of irreversible damage to the cable or damage to the drum that safe and high-quality cable installation will not be possible

## Transport and handling of the drums

- For loading and unloading of the drums must be only used the suitable equipment to avoid the risk of the damage to the drum or cable
- Cable drums must be transported properly fixed and in vertical position
- Only plywood drums up to diameter of 600 mm are transported horizontally (placed on the front), such packaging is not intended for storage but only for the transport of the cables between the manufacturer and the first customer

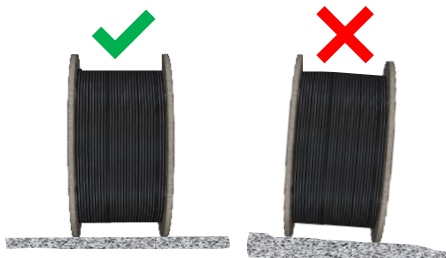


- The rolling of the drums must be limited to the necessary distance and always in direction which does not cause the cable unwinding – in the direction of the arrow marked on the front of the drum

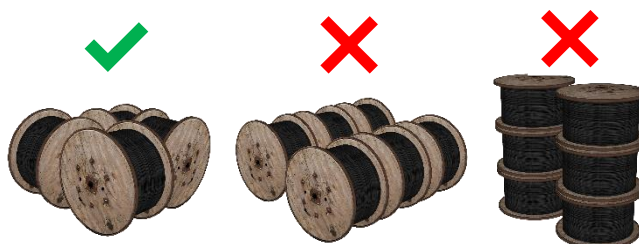


## The cable storage

- Drums must be stored indoors on a flat and solid surface with even loading of both drum faces
- Drums stored outdoors must be covered by a suitable weather-resistant material



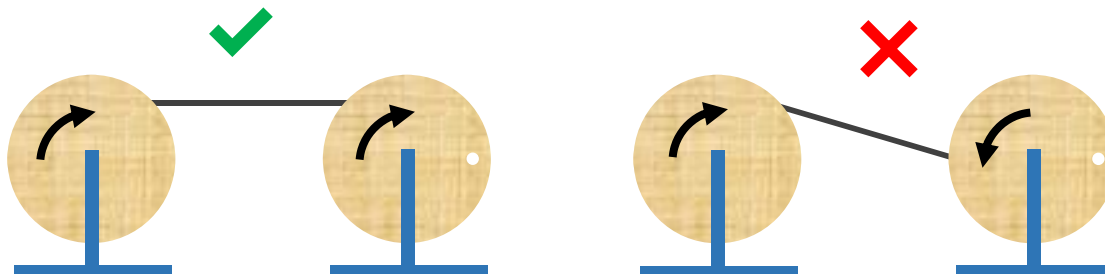
- Storage temperature range is specified in the relevant cable specification. The cables marked as indoor cables must be stored only in the covered areas protected against UV radiation with a maximum relative humidity of 60 %.
- Despite the fact that the outdoor cables are weather-resistant, the variability of the weather can irreversibly damage the drum. There would not be possible quality cable installation using the cable stored on the damaged drum. It is recommended to store preferably all drums indoor.
- Drums delivered on pallets in a horizontal position must be stored in a vertical position immediately. The cable winding may come loose when storing the drums on their sides.
- Drums should be stacked crosswise perpendicular to each other to prevent the cable damage



- Every drum must be visually checked before unloading. If the mounting rails and outer cover material show signs of damage.
- The sealing caps on both ends of the cable must be checked before storage. Damaged caps must be replaced immediately.
- The colour of the sheath may fade in exposed areas during long-term cable storage (more than 3 months). This effect is called colour fastness and has nothing to do with the UV stability of the cable sheath. Mechanical properties of the sheath or cable are not affected.

## **Cable Rewinding**

- Cables can only be rewound in the direction of cable bending



- The minimum bending radius of the cable must not be exceeded during rewinding the spool to another
- The cable tension during rewinding must be even throughout the rewinding. If the tensile force fluctuates during rewinding, the cable may be permanently damaged. The maximum safe tensile rewinding force for different cable constructions is given below:

Patch cord cables, Drop cables up to 2 fibres	20 N
TB cables over 2 fibres	40 N
Cables with central tube	50 N
Cables with central tube without peripheral tension elements	Rewinding is not recommended
Multi-tube cables	100 N
Multi-tube cables without peripheral tension elements	30 N