Guideline regarding transport, storage and usage of mining cables

1. Storage

Drums with cables should be stored in a designated storage place. It is advisable to protect the drums with wooden bars or wedges. Improper storing conditions can cause danger for warehouse workers as well as drum or cable damage.

Drums should be stored in proper conditions:

- not exposed to high temperatures (kept out of open fire)
- not exposed to chemicals, acids etc.
- not exposed to mechanical damge
- protected against sunlight, UV radiation and atmospheric conditions

2. Transport

Cables prepared for transport should be wound with accurate bending radius on wooden or steel drums. Drums should be fixed and protected against rolling down, shifting or damage and transported with suitable vehicles. Throwing or turning drums upside down is strictly forbidden.

Drums should be transported in a vertical position. It is not permissible to store and transport cable drums in horizontal position (with flange placed horizontally on the surface, as per the picture with forklift crossed out).

Drum loading should be carried out using forklifts with proper capacity.

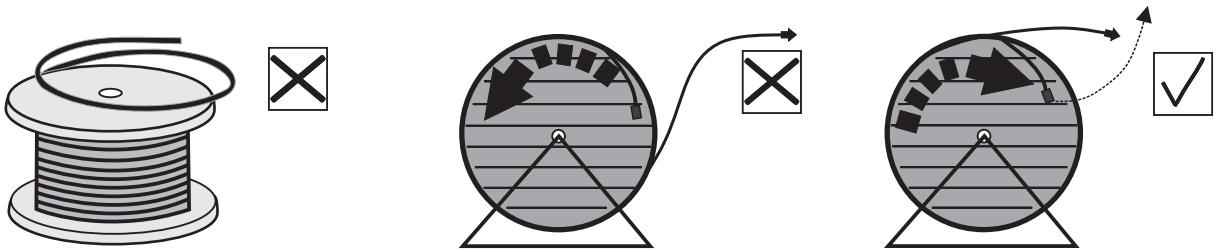
Cable drums should only be transported with suitable vehicles enabling safe delivery. Drums should be protected against unnecessary movements by means of wooden bars, wedges or fixing straps.

BITNER®

3. Correct cable unreeling

Cables should be unreeled sufficiently to cut the quantity needed.

Unreeling the cables from drums should take place in vertical drum position. Bending radius and pulling forces indicated in cable specification must not be exceeded.



Reeling and unreeling should be done properly in accordance with bending radius suitable for the given cable type and size and its speed should not exceed 60 m/min.

Once the cable is unreeled, the place where the cut is needed should be marked. To cut the cable with bigger outer diameter one should use hydraulic cable cutter and cable cutter with ratchet mechanism for cables with smaller outer diameters. Cable end needs to be properly secured with heat shrink end caps in order to make sure that cable is protected against moisture or water. All safety rules need to be followed when cutting.

4. Proper cable management

1. Operating voltage should comply with values included in technical specification of a given cable
2. Permissible operating and installation temperatures should not be exceeded
3. Current-carrying capacity for the selected size can not be exceeded
4. Appropriate pulling forces specified for the given cable are required when laying cables
5. Equipment used for cable management needs to be chosen properly and adjusted to technology and the scope of work
6. Cable installation should not cause any damage of insulation or the outer sheath
7. Cable parameters need to be chosen respectively in relation to cable usage
8. Connections must comply with electromagnetic compatibility conditions
9. Cables must not be overbent
10. Cable shoud be installed in a way that would prevent any possible damage that can be caused by heavy or sharp objects
11. Cable connections must be tight

Issued by: Piotr Dybich
https://bitner-cablefactory.com/