

ROPE CARE ADVICE



STORAGE OF ROPE

Try to keep your rope stored in a clean and dry environment whenever possible. Rope should not be stored on dirty floors and always keep from dragging over rough or uneven ground as dirt, small stones or sand can work itself between the fibres and into the rope causing internal abrasion that is difficult to spot.

If your ropes are stored away for long periods of time, it's a good idea to hose ropes with fresh water to wash away dirt build-up.

EXPOSURE TO WATER

Most rope types are unaffected by exposure to water apart from Nylon, whose properties change slightly

when wet. The nylon fibre shrinks, and the strength of the rope can be reduced up to as much as 15%. The rope will stiffen, and the stretch properties are increased.

ROLLERS, SHEAVES & PULLEYS

When using a sheave always select a ratio of 8 -10 times the rope diameter except when using ropes made from the Aramid family this figure should be doubled. 'V' shaped grooves should be avoided as they can squeeze the rope at certain points causing a friction build up and shorten the life of the rope.

WINCHES

It is important when winding rope onto a winch that care and attention is taken to ensure the lay is even across the drum, neat and tightly wound by keeping the rope under tension. By not keeping the rope taught, the rope has a tendency to bury between the rope layers.

FRICTION

Always take into consideration friction between the barrel of the winch and the rope itself. Fibres 'can' melt or become fused and different rope materials behave in different ways.

HEAT

Each fibre has different melting points and this is an important point to take into consideration both in use and in storage.

ABRASION

All synthetic ropes will be damaged to some extent if exposed to sharp or

abrasive surfaces. It is important to take this into consideration especially when the rope comes into contact with any static surface. Always ensure that any sheaves or rollers used are clean, smooth and are rotating well. Abrasion can also occur inside the rope should sharp particles such as sand or grit to penetrate through the exterior of the rope.

UV RADIATION

All synthetic materials are subject to UV radiation to some degree, but some fibre have better resistance better than others. Please have a look at our fibre guide or material properties section for further details on individual rope types.

INSPECTION

All rope should be regularly inspected to check for damage and to ensure it is fit for purpose. Check the entire length of the rope taking into consideration the following points:

EXTERNAL ABRASION

When in use the outer filaments of the yarn will 'fluff' or 'fur'. There is no problem with this and in fact, this effect can provide protection for the fibres below. Always look out for cut and damaged strands as they will seriously impact on the strength of the rope.

INTERNAL ABRASION

Where possible, flex the cover of the rope to look in between the fibres. If there is damage to the internal fibres, then sharp particles such as grit or sand may have worked itself into the rope. Under extreme loads the yarns may be wearing against each other.

GLAZING

Excessive heat build-up on the rope

will cause a sheen to appear. This is caused by heat starting to melt the fibre itself. This mostly happens with rope on winch barrels or capstans where slippage may occur.

IRREGULARITIES

During visual inspection look out for flat spots or lumps in the ropes caused by damaged rope core(s). This normally occurs because the rope has been overloaded in application or has suffered shock loading.

LOADING FATIGUE

Each time a rope is put under load it is subject to tension fatigue. Selecting a rope with a higher strength increase service life as it lessens the level of fatigue on the rope in application.

BENDING FATIGUE

Every time a rope is bent or flexed a certain amount of bending fatigue occurs. It is important to allow for this especially if used through rollers or sheaths as bend fatigue takes place, even low loads.

COMPRESSION

Most fibres cope with compression apart although special care must be taken with the Aramid family of products. Also ensure that rollers or sheaves are large enough to take the rope to prevent compression or pinch points.

CREEP

The 'creep factor' is a permanent extension to the rope because of a sustained load over a period. The rate of creep will increase at higher temperatures or at higher loads.

CONTACT ONE OF OUR EXPERTS
FOR FURTHER INFORMATION.