



Guidelines

FOR SOCKETING OF SQUAREBRAIDED COMBINATION ROPE - WITH WIRELOCK

1. Socketing (Wirelock)

Fyns Kran Udstyr will undertake socketing with Wirelock, unless otherwise agreed between the customer and Fyns Kran Udstyr. Wirelock is an especially strong twin-component moulding material. Wirelock is increasingly being used instead of zinc, e.g. because:

- Heat generation is much lower than with a zinc seal, thus eliminating the risk of melting/burning of the fibre materials and hardening of the steel wires which might cause stress fractures. The disappearance (melting away) of grease is also avoided at the junction by the base of socket.
- Wirelock does not require heating of the rope socket, as long as its temperature is not below 10 °C.
- Wirelock permits full loading 1–2 hours after the sealing process.
- Wirelock does not require any special ancillary tools in connection with the sealing process.
- Wirelock is resistant to acid, salt water, oil and grease.
- Wirelock tolerates shock loading and impact.
- Wirelock can be used for all types of seal.
- Wirelock penetrates further in between the wires than zinc.
- Wirelock can be used in temperatures of up to 115 °C.

Wirelock has been approved by such bodies as the Danish Directorate of Labour Inspection, Norwegian Veritas and Lloyd's Register of Shipping.

2. Socketing of square-braided combination rope with Wirelock

1

Insert the end of the square-braided rope into the rope socket and mark the rope with the length of the socket. Put duct tape on the rope and secure this with a plastic zip tie. (this is only for holding the rope together)
The distance from the end of the rope to the uppermost part of the rigging must correspond to the length of the conical part of the rope socket, minus the diameter of the combination rope. The length of the rigging (l) must be at least 1 x d.



2

The rope may then be split, but the 8 parts of combination rope should not be split. The split must be made right down to the tape and plastic zip tie.
Do not exceeding an angle of 90 degrees at any time



3

Pull the rope socket over the brush until the rope end levels with the upper edge of the rope socket. The 8 parts must be evenly spread within the rope socket. Check that a part (min. 1 x d) of the upper section of the rigging is in the conical part of the rope socket.



Fasten the rope so that it is vertical, while a piece (approx. 25 x d) of the rope is hanging vertically. Pack the base of socket with e.g. putty to prevent any Wirelock escaping during the sealing process.



4

Mix the two components together in e.g. a plastic bucket. The components must have a temperature between 10 and max. 25 °C. Stir the mixture thoroughly for around two minutes. If the air temperature (sealing temperature) is below 10 °C, a bag of "booster" (accelerator) should be added before stirring. The bag provides instructions about how much Wirelock must be used. Below 3 °C two bags should be added. The sealing process can be undertaken at temperatures below 0 °C, as long as measures are taken to ensure that the Wirelock putty itself does not come under 10 °C at any time during the process.

NB: The mix ratio between the individual components is precisely calculated and should not be divided. If any doubt follow guidance provided by Wirelock Technical Data Manual for kits and mixing.



5

Pour the mixture into the rope socket until the rope socket is full. To prevent formation of air bubbles, a piece of steel wire should be used to "whip" gently between the parts of the rope. Several applications can be made at a time, if made in quick succession. Any surplus Wirelock must be disposed of.

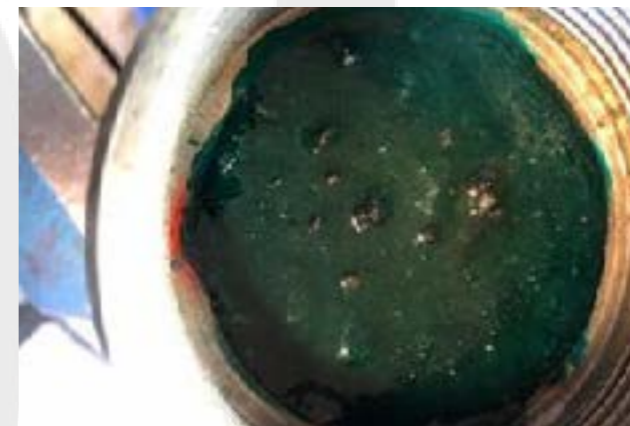


NB: At the outset the mixture has a thick, liquid consistency. It then becomes thinner until a certain point at which the hardening process begins. The Wirelock must be poured before the mixture reaches its thinnest state.

6

Wirelock is produced in such a way that its hardening time is 10 minutes in the 18–24 °C temperature range. It should, however, be noted that the product's hardening time is very sensitive to the temperature of the Wirelock, e.g. it is only approx. 5 minutes at 30 °C and approx. 20 minutes at 10 °C. The hardening time has no effect on the quality of the hardening.

Loads can be applied to the rope socket one hour after the Wirelock is hard on the surface. See section: "3. Seal Inspection".



7

Putty must be removed.

3. Seal inspection

A

If a screwdriver is used to scratch the Wirelock at the opening of the rope socket and a white stripe appears the hardening process has been completed correctly.



B

The darker the Wirelock, the higher the temperature during the hardening process. The dark colour is achieved due to correct hardening conditions. If the colour is bluish-green, it indicates a "cold" sealing/hardening process. The sealing process may only be approved if the screwdriver test has been passed.



4. Reuse of rope sockets

Dismantling of Wirelock in used rope sockets can be undertaken by means of heating in a furnace to a temperature of 250 °C, after which the seal cracks when struck and can be removed with a mandrel. To avoid heating up the rope socket, it is recommended that the material be pressed out using special equipment.

Dismantling of Wirelock in used rope sockets can be undertaken by means of heating in a furnace to a temperature of 250 °C, after which the seal cracks when struck and can be removed with a mandrel. To avoid heating up the rope socket, it is recommended that the material be pressed out using special equipment. (Hydraulic presses)

NB: The rope socket must in no circumstances be heated to a temperature of more than 250 °C unless otherwise informed by the supplier of the rope socket.

5. Please note

A:

Rope and rope socket must be inspected regularly for fractures/defects, in particular in and around the base of the rope socket.

B:

Avoid using an open flame during the mixing and sealing process with Wirelock. The hardening agent contains an acid that is flammable at approx. 30 °C.

C:

Protective glasses and gloves must be worn during the sealing process. If undertaken indoors, air extraction equipment must be used.

D:

Wirelock must not come into contact with strong alkaline solutions such as acetone, as these substances can cause the Wirelock to disintegrate.

E:

If the rope socket has a temperature of below 10 °C, it should be warmed up, e.g. by placing it in a bucket of warm water.

F:

The "use before" date presupposes that the Wirelock is stored at 10–25 °C.

Every consignment is accompanied by "Supplier's Directions for Use" of Wirelock.

Fyns Kran Udstyr A/S will be pleased to carry out the sealing process with Wirelock either on your premises or in our own splicing shop. Fyns Kran Udstyr is also a supplier of rope sockets and other types of fittings.

Fyns Kran Udstyr A/S reserve the right to change product design, material, specifications and instructions without prior notice and without obligation to others.