

# PRODUCT BULLETIN



A WireCo® WorldGroup Brand

## **TUF-KOTE®/PFV® ROPE AND PRESTRETCHING**

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### **Why are ropes prestretched?**

The initial loadings of a standard rope tighten the wires and strands around the core. This results in the rope lengthening slightly and is called “constructional stretch”. In applications where a specific length is critical, the constructional stretch can be minimized by prestretching the rope prior to its installation. Prestretching is done by applying a designated load for a designated time.

### **Why we don't normally prestretch TUF-KOTE/PFV rope**

A TUF-KOTE/PFV rope does not have the same adjustment. Because the wires and strands are surrounded by plastic, they cannot tighten as readily and the constructional stretch is minimal. Thus, prestretching is not normally required or done with a TUF-KOTE/PFV rope.

### **What happens if a TUF-KOTE/PFV rope is prestretched?**

In spite of the low benefit of prestretching a TUF-KOTE/PFV rope, some users still want this operation performed. There are several potential drawbacks to consider, and they vary depending on whether the prestretching is done before or after the impregnation with Tuf- Kote/PFV.

If a finished TUF-KOTE/PFV rope is prestretched, there is very little pulling down of the rope because the wires and strands are held in place by the plastic. Thus, there is very little constructional stretch to be removed. Also, the outer surface of the rope may be affected by the grips in the prestretching bed. This can result in conditions ranging from light surface markings on the plastic to the complete removal of the plastic on the exterior of the rope. Do not request prestretching of finished TUF-KOTE/PFV rope unless this potential damage to the plastic is acceptable.

If a rope is prestretched before the extrusion process, the tightening of the rope reduces the clearances between the strands and wires. This makes it more difficult for the TUF-KOTE/PFV to penetrate into the rope and reduces the internal benefits of the TUF-KOTE/PFV. Also, the smaller clearance between the outer strands reduces the anchoring area between the internal and external plastic. This will allow the TUF-KOTE/PFV to be stripped off the rope easier. Do not request prestretching of rope before impregnation with TUF-KOTE/PFV unless these possible consequences are acceptable.