



chaRope®
Fibre ropes in perfection

**CHANGE THE ROPE -
NOT THE CRANE.**

TROWIS FIBRE ROPE EXPERTS



TROWIS GMBH THE COMPANY

Here at our **TROWIS** site in Chemnitz, we develop and produce ropes for materials-handling applications. What makes our ropes stand out is the material they are made of. Instead of heavy steel wires, we use high-strength, super-light fibres and abrasion-resistant plastic sheathing. In combination with the cutting-edge process technology, the perfect rope is created.

OUR PHILOSOPHY WITH SAFETY, LIGHTER!

Safety and reliability are key to our efforts to supply high-strength fibre ropes for lifting applications.

Lighter – much lighter. Lightweight design is the basis for new technical solutions in rope design – the main advantage our ropes have over classic steel ropes is their substantially lower weight.





chaRope® THE ROPE CHANGER

chaRope® combines traditional rope manufacturing with innovative fibre-composite technology.

We replace a wire rope with a fibre rope of the same load-bearing capacity and diameter. This means the new rope is fully compatible with standard equipment – a one-to-one substitution. In general, no change of sheaves, hoists or load capacities is required.

This performance is achieved by two key components. On the one hand, a multi-layer core rope with maximum packing density as well as a low-plasticiser, high-strength, high-tech fibre material; on the other hand, a thin-walled fibre-composite sheath consisting of inner and outer plastic matrices of different functionalities that embed a fibre blend of high-strength, elastic fibres into one another.



ROPE SHEATH FIBRE COMPOSITE

The sheath is the protective shield for the load-bearing core rope. It reliably protects against surface abrasion, UV-radiation, dirt and moisture. Whereas stresses acting on the surfaces of unsheathed ropes significantly reduce the service life of those ropes, for core/sheathed ropes, these stresses act almost exclusively on the sheath. This type of functional separation means that sheath abrasion inevitably leads to the rope being discarded, with the load-bearing core rope still having a long residual service life.

- **Monolithic** – what's inside (lubricant) stays inside; what's outside (water, chemicals, dirt) stays outside.
- **Extra durable** due to very high abrasion resistance of the materials used.

- ◆ High abrasion resistance
- ✓ Protection from dirt, water
- 👤 Flexible, easy-grip
- 🧤 Easy to clean
- 🛡️ Mould resistance
- 📏 Dimensionally stable



ONE ROPE **MANY BENEFITS**

- Compatible with standard equipment | one-to-one substitution of the rope
- Super light | 80% lighter compared to wire ropes | lighter hook blocks can be used
- Significantly longer service life
- High abrasion resistance | robust
- Protection from dirt | water | chemicals
- Environmentally friendly | no lubricant leakage
- Easy handling | easy assembly
- Easy to clean
- High temperature resistance
- Dimensionally stable | no plasticising or creeping of the fibres
- UV-resistant | colour fast
- Sheath repair possible | minimal diameter change
- Low maintenance

**WITH SAFETY,
LIGHTER!**



chaRope® THE ROPE CHANGER

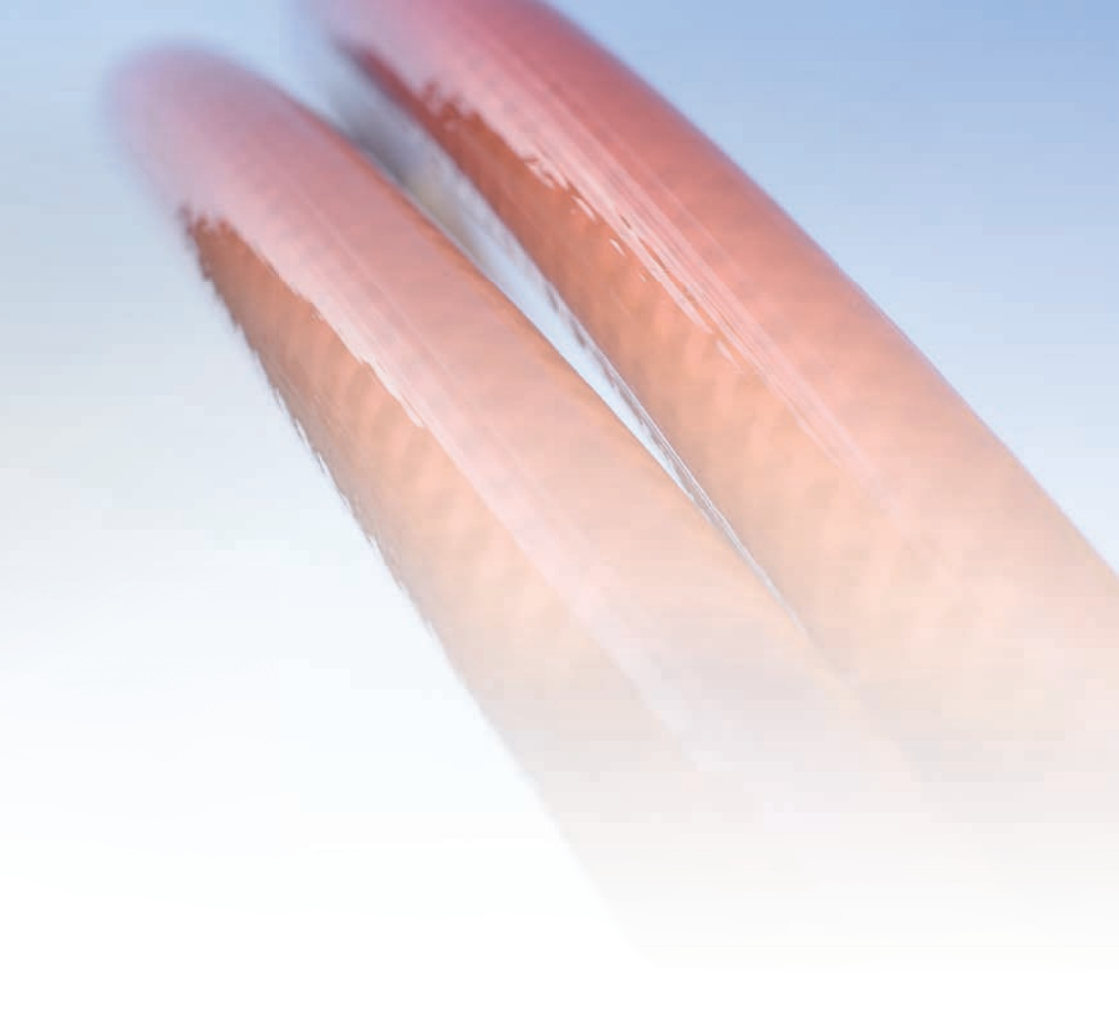
chaRope® has been developed and is produced in accordance with ISO/TS 23624:2021-05 (Cranes – Safe use of high-performance fibre ropes in crane applications). It therefore fulfils all normative requirements with regard to crane specifications and discard criteria.

ACTUAL ROPE SIZE

Rope diameter in mm	Mass per length in g/m	Min. breaking load in kN
8	64	45
10	95	70
12	125	95
16	245	210

ROPE ELONGATION

Load/MBL in %	Safety factor	Elongation in %
100	1	2,96
25	4	0,77
14	7	0,41



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