

# Cable solutions for fish farms

ROFLEX® – Reliable energy supply near the coast



Power and control cables with a polyurethane outer sheath (often abbreviated as PUR or TPU) are increasingly replacing conventional rubber cables in a wide range of applications – especially in aquaculture systems.

## The future of fish farming: offshore aquaculture

Current studies show that offshore fish and seafood production facilities offer considerable advantages over coastal aquaculture. A lack of space and frequent parasite infestations in conventional breeding facilities are leading to more and more fish farms being relocated to the open Atlantic. Numerous factors need to be taken into account when building these offshore facilities:

- Current, salinity, temperature, swell
- Hydraulic systems for lowering the systems – Protection against heavy storms
- Reliable electrical infrastructure for feeding, cleaning and medication monitoring

Aquaculture facilities near the coast and on the open seas are exposed to heavy loads. Safe cabling is essential for operation.

## Perfect for demanding underwater applications

The combination of cross-linked ethylene-propylene rubber (EPR) – a halogen-free, synthetic rubber – and the excellent properties of PUR as an outer sheath offers:

- Outstanding water resistance and electrical insulation
- Pressure resistance up to 20 bar (corresponds to approx. 200 meters immersion depth)
- Permanent use in water from -40 °C to +50 °C

These outstanding properties have been confirmed in long-term tests and in real-life use in sea, lake and river water.

## Advantages

- Immersion depth of approx. 200 meters
- Suitable for permanent water storage (AD8)
- Good abrasion resistance
- Flexible at low temperatures down to -40 °C
- Halogen-free
- RoHS and REACH compliant
- Oil and fuel resistant
- Good weather, ozone and UV resistance
- Hydrolysis-resistant



### Durable, flexible, resistant

ROFLEX® convinces with a special polyurethane mixture with:

- Excellent sliding properties
- High mechanical protection
- UV resistance for indoors and outdoors

ROFLEX® remains reliable even under extreme conditions.

### Studer Cables – Your partner for customized solutions

You can rely on Swiss quality, high manufacturing depth and many years of experience for perfectly coordinated cable solutions.

### Innovative materials for maximum safety

Thanks to state-of-the-art technology and material research, ROFLEX® offers:

- Excellent insulation
- High temperature and pressure resistance
- Durability and easy handling
- Additional security features

**Rely on ROFLEX® – for safe and sustainable cabling of your underwater aquaculture systems.**

The following table shows further advantages of ROFLEX® compared to the requirements for H05BQ-F and H07BQ-F in accordance with EN 50525-2-21:

## Comparison Standard – ROFLEX®

	≤1,0 mm <sup>2</sup>		≥1,5 mm <sup>2</sup>	
	H05BQ-F	ROFLEX®	H07BQ-F	ROFLEX®
Nominal voltage U / U	300 / 500 V	300 / 500 V	450 / 750 V	600 / 1000 V
Test voltage	2000 V	3500 V	2500 V	3500 V
Short-term conductor temperature	+90 °C	+120 °C	+90 °C	+120 °C
Fixed operating temperature	-40 °C to +80 °C	-55 °C to +90 °C	-40 °C to +80 °C	-55 °C to +90 °C
Operating temperature occasionally moved	-30 °C to +80 °C	-40 °C to +80 °C	-30 °C to +80 °C	-40 °C to +80 °C



Further information can be found in our data sheets on our website: <https://studercables.com/en/products/>

In addition to first-class products, Studer Cables offers comprehensive advice, precise calculations and other services. If you have any questions, please do not hesitate to contact us personally.

**Studer Cables – competent and indispensable.**