

# Cable solutions for use in cold environments

ROFLEX® – Cables for extreme conditions



Power and control cables with a polyurethane outer sheath (PUR or TPU for short) are increasingly replacing traditional rubber cables, especially in applications with extremely low temperatures, such as ski lift operation. Standard versions such as H05BQ-F or H07BQ-F are available from various suppliers. However, ROFLEX® from Studer Cables also offers numerous other advantages.

## Maximum operational reliability even in extreme cold

Reliable operation of ski lifts and other systems exposed to cold is essential. The use of inferior cables can lead to failures due to extreme cold or strong winds. With ROFLEX® you avoid such risks. Even at temperatures as low as -40 °C, ROFLEX® remains flexible and reliable and guarantees safe functionality.

## Proven material combination for maximum durability

ROFLEX® combines cross-linked ethylene-propylene rubber (EPR) as wire insulation with the proven advantages of PUR as the outer sheath. This material composition offers:

- Excellent water resistance
- Optimized electrical insulation properties
- Durability and resistance in extremely cold environments - confirmed by years of practical experience and extensive long-term testing

## Advantages

- 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



### Optimum sliding properties and mechanical protection

Another unique selling point of ROFLEX® is the use of a custom-specific polyurethane mixture for the entire outer sheath. This ensures:

- Permanently excellent sliding properties
- Excellent mechanical protection of the cores, even in the event of movement or icing

### Versatile use thanks to UV resistance

Thanks to its additional UV resistance, ROFLEX® is ideal for flexible indoor and outdoor use in extreme conditions where conventional cables fail.

### Studer Cables: Your partner for customized cable solutions

Benefit from our many years of experience and innovative Swiss quality. Our high level of vertical integration enables us to produce customized cable solutions that are perfectly tailored to your requirements. Thanks to state-of-the-art production facilities, continuous material research and innovative polymer developments, our cables achieve the highest quality standards:

- Optimum insulating properties
- Higher performance at extreme temperatures
- Longer service life and improved handling
- Additional security features

**Rely on ROFLEX® – for dependable energy transmission in cold environments!**

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.**