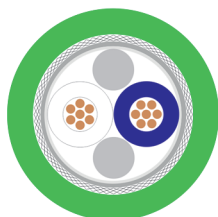


# HELUKAT® SPE Type C 1000BASE-T1 THICK SF/UTP PUR CHAIN

Single Pair Ethernet Type C



## TECHNICAL DATA

Industrial Ethernet cable acc. to UL-Std. 758 (AWM) Style 21223

Temperature range	flexible -30°C to +80°C fixed -40°C to +80°C UL (AWM) to +80°C
Peak operating voltage	125 V (not for high power current installation purposes)
Test voltage core/core	3000 V
Conductor resistance at 20°C	max. 55.0 Ohm/km
Loop resistance at 20°C	max. 110.0 Ohm/km
Insulation resistance	min. 1.0 GOhm x km
Mutual capacitance core/core	at 800 Hz, approx. 50 pF/m
Rel. Velocity of Propagation	approx. 77%
Characteristic impedance	at 100 MHz, 100 Ohm ± 5 Ohm
Caloric load	approx. 0.86 MJ/m
Minimum bending radius	flexible 12x Outer-Ø fixed 5x Outer-Ø

## CABLE STRUCTURE

- Copper wire bare, AWG sizes
- Core insulation: Foam PE
- Core identification: white, blue
- Fleece wrapping
- 1. Screen: plastic-coated aluminium foil (St)
- 2. Screen: braided screen of tinned copper wires
- Outer sheath: PUR
- Sheath colour: green
- Length marking: in metres

## PROPERTIES

- resistant to: oil, UV radiation, hydrolysis, microbes, coolants, greases
- abrasion-resistant, notch-resistant, tear-resistant, cut-resistant, wear-resistant, low adhesion
- suitable for use in drag chains
- halogen-free
- flame-retardant

## TESTS

- flame-retardant acc. to DIN VDE 0482-332-1-2 / DIN EN 60332-1-2 / IEC 60332-1-2, CSA FT1
- oil-resistant acc. to DIN VDE 0473-811-404 / DIN EN 60811-404 / IEC 60811-404

## APPLICATION

The 1 Gbit Standard SPE 1000BASE-T1 is suitable for use in drag chains in machine and plant construction applications in Ethernet networks with transmission distances up to 40 metres. Single Pair Ethernet meets the requirements of many different industries and is able to simultaneously supply power to devices via Power over Data Line (PoDL).

## NOTES

- Conductor sizes are based on the AWG measurement system, metric conductor sizes (mm<sup>2</sup>) are approximated and are for reference only
- UL Voltage Rating: 600 V

## TYPICAL VALUES

Frequency (MHz)	1	4	10	16	20	31.25	62.5	100	155	200	250	300	400	600
Attenuation (dB/100m)	2.1	3.7	5.8	7.3	8.2	10.3	14.6	18.5	23.2	26.5	29.7	32.7	37.0	47.1

Part no.	No. cores x AWG-No.	Cross-sec. mm <sup>2</sup> , approx.	Conductor Ø mm, approx.	Core Ø mm, approx.	Outer-Ø min - max mm	Cu factor per km	Weight kg/km, approx.
11018068	1 x 2 x AWG 22 / 19	0.38	0.79	1.9	6.2 - 6.6	24.0	50.0