

# HELUKAT® 100S CAT.5e 1000 V SF/UTP PUR CHAIN

flame-retardant



## TECHNICAL DATA

Industrial Ethernet cable / Cat. 5e acc. to ISO/IEC 11801, DIN EN 50173, IEC 61156-6, DIN EN 50288-2-2, UL-Std. 758 (AWM) Style 21576

<b>Temperature range</b>	flexible -30°C to +60°C fixed installation -40°C to +80°C
<b>Peak operating voltage</b>	UL (AWM) to +80°C 125 V (not for high power current installation purposes)
<b>Test voltage core/core</b>	500 V
<b>Conductor resistance at 20°C</b>	max. 125.0 Ohm/km
<b>Loop resistance at 20°C</b>	max. 250.0 Ohm/km
<b>Insulation resistance</b>	min. 5.0 GOhm x km
<b>Mutual capacitance core/core</b>	at 800 Hz, approx. 50 pF/m
<b>Rel. Velocity of Propagation</b>	approx. 67%
<b>Characteristic impedance</b>	at 1 to 100 MHz, 100 Ohm ± 15 Ohm
<b>Caloric load</b>	approx. 0.64 MJ/m
<b>Minimum bending radius</b>	flexible 15x Outer-Ø fixed installation 7x Outer-Ø

## ■ CABLE STRUCTURE

- Copper wire bare, AWG sizes
- Core insulation: Polyolefin
- Core identification: colour coded, pairs:  
No. 1: white-blue / blue  
No. 2: white-orange / orange  
No. 3: white-green / green  
No. 4: white-brown / brown
- Cores stranded in pairs with optimal lay lengths
- Fleece wrapping
- Pairs stranded in layers with optimal lay lengths

- 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

- halogen-free acc. to DIN VDE 0482-754-1 / DIN EN 60754-1 / IEC 60754-1
- flame-retardant acc. to DIN VDE 0482-332-1-2 / DIN EN 60332-1-2 / IEC 60332-1-2

## ■ APPLICATION

HELUKAT® 100S CAT.5e 1000 V SF/UTP PUR CHAIN is designed for use in cable carriers and the recurring loads caused by moving machine components. Thanks to the PUR sheath, it also offers excellent resistance to common mineral oils, greases and cooling lubricants.

## ■ 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: 1000 V

## ■ TYPICAL VALUES

Frequency (MHz)	10	16	62.5	100	155
Attenuation (dB/100m)	9.5	12.1	24.8	32.0	41.0
NEXT (dB)	50.3	47.2	38.4	35.3	30.0
ACR (dB/100m)	40.8	35.1	13.6	3.3	-11.0

Part no.	No. cores x AWG-No.	Cross-sec. mm <sup>2</sup> , approx.	Conductor Ø mm, approx.	Core Ø mm, approx.	Outer Ø mm, approx.	Cu-weight kg/km	Weight kg/km, approx.
11007779	2 x 2 x AWG 26 / 19	0.15	0.5	1.0	6.6	31.0	56.0