

MULTIFLEX 512®-PUR

for high mechanical stress



HELUKABEL® MULTIFLEX 512®-PUR 12G1,5 QMM / 22539 300/500 V CE

TECHNICAL DATA

PUR drag chain cable in alignment with DIN VDE 0285-525-2-21 / DIN EN 50525-2-21

Temperature range	flexible -30°C to +80°C fixed -40°C to +80°C
Nominal voltage	AC U ₀ /U 300/500 V
Test voltage core/core	3000 V
Minimum bending radius	flexible 5x Outer-Ø fixed 3x Outer-Ø

CABLE STRUCTURE

- Copper wire bare, extra finely stranded acc. to DIN VDE 0295 Class 6 / IEC 60228 Class 6
- Core insulation: Special-PP
- Core identification acc. to DIN VDE 0293-334, black cores with consecutive labeling in white digits
- Protective conductor: starting with 3 cores, G = with protective conductor GN-YE, in the outer layer, x = without protective conductor
- Cores stranded in layers with optimally matched lay lengths
- fleece wrapping over each stranding layer, from 4 mm² without fleece wrapping
- Outer sheath: Special grade of full polyurethane acc. to DIN VDE 0207-363-10-2 / DIN EN 50363-10-2 (compound type TMPU)
- Sheath colour: grey (RAL 7001)
- Length marking: in metres

PROPERTIES

- resistant to: oil, UV radiation, ozone, oxygen, weathering effects, hydrolysis, microbes, coolants, hydraulic fluids, acids, alkalis, greases, seawater and wastewater
- highly abrasion-resistant, notch-resistant, tear-resistant, cut-resistant, wear-resistant, low adhesion

- for outdoor use
- suitable for use in drag chains
- halogen-free
- the materials used during manufacturing are cadmium-free, contain no silicone and are free from substances harmful to the wetting properties of lacquers

TESTS

- oil-resistant acc. to DIN VDE 0473-811-404 / DIN EN 60811-404 / IEC 60811-404
- UV-resistant acc. to DIN EN ISO 4892-2
- weather-resistant acc. to DIN EN ISO 4892-2
- Alternate bending test: tested on approx. 10 million cycles

APPLICATION

These special drag chain applications are used for permanently flexible applications in machine and tool construction, in robotics and on permanently moving machine parts for continuous use in multi-shift operations. With free movement, without tensile stress and without forced motion control capabilities, these cables have proven their reliable performance in drag chain applications. This highly flexible cable with gliding PP core insulation and cut-resistant low adhesive PUR outer sheath, guarantees an optimum service life and very high economic efficiency.

NOTES

- the conductor is metrically (mm²) constructed, AWG numbers are approximated, and are for reference only
- cleanroom qualification tested on analog types; please note "cleanroom qualification" in your order
- for use in energy supply systems:
 - 1) the assembly instructions must be observed
 - 2) for further application parameters, please refer to the selection tables
 - 3) for special applications, we recommend contacting us and using our data entry form for energy supply systems

Part no.	No. cores x cross-sec. mm ²	AWG, approx.	Outer Ø mm, approx.	Cu-weight kg/km	Weight kg/km, approx.
22501	2 x 0.5	20	5.5	9.6	38.0
22502	3 G 0.5	20	5.8	14.4	46.0
22503	4 G 0.5	20	6.5	19.0	59.0
22504	5 G 0.5	20	7.0	24.0	68.0
22505	7 G 0.5	20	8.3	33.6	88.0
22506	12 G 0.5	20	9.9	58.0	131.0
22507	18 G 0.5	20	11.6	86.0	197.0
22508	20 G 0.5	20	12.2	96.0	260.0
22509	25 G 0.5	20	14.0	120.0	282.0
22510	30 G 0.5	20	14.5	144.0	315.0
22511	36 G 0.5	20	15.5	172.0	374.0
22512	2 x 0.75	19	6.5	14.4	47.0
22513	3 G 0.75	19	6.9	21.6	58.0
22514	4 G 0.75	19	7.4	29.0	69.0
22515	5 G 0.75	19	8.3	36.0	85.0
22516	7 G 0.75	19	9.6	50.0	118.0

Part no.	No. cores x cross-sec. mm ²	AWG, approx.	Outer Ø mm, approx.	Cu-weight kg/km	Weight kg/km, approx.
22517	12 G 0.75	19	11.8	86.0	183.0
22518	18 G 0.75	19	13.8	130.0	270.0
22519	20 G 0.75	19	14.5	144.0	290.0
22520	25 G 0.75	19	16.8	180.0	374.0
22521	30 G 0.75	19	17.2	216.0	420.0
22522	36 G 0.75	19	18.7	259.0	498.0
22523	2 x 1	18	6.9	19.2	55.0
22524	3 G 1	18	7.5	29.0	70.0
22525	4 G 1	18	8.1	38.0	86.0
22526	5 G 1	18	8.8	48.0	102.0
22527	7 G 1	18	10.5	67.0	143.0
22528	12 G 1	18	12.8	115.0	225.0
22529	18 G 1	18	15.0	173.0	334.0
22530	20 G 1	18	16.0	192.0	370.0
22531	25 G 1	18	18.5	240.0	460.0
22532	30 G 1	18	18.7	288.0	530.0

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22533	36 G 1	18	20.3	346.0	625.0
22878	41 G 1	18	22.4	410.0	779.0
22879	50 G 1	18	24.2	498.0	953.0
22880	65 G 1	18	27.5	650.0	1205.0
22534	2 x 1.5	16	7.7	29.0	70.0
22535	3 G 1.5	16	8.2	43.0	90.0
22536	4 G 1.5	16	8.9	58.0	106.0
22537	5 G 1.5	16	9.8	72.0	145.0
22538	7 G 1.5	16	11.7	101.0	205.0
22539	12 G 1.5	16	14.1	173.0	320.0
22540	18 G 1.5	16	16.8	259.0	465.0
22541	20 G 1.5	16	17.8	288.0	510.0
22542	25 G 1.5	16	20.6	360.0	650.0
22543	30 G 1.5	16	20.9	432.0	750.0
22544	36 G 1.5	16	22.9	518.0	880.0
22881	42 G 1.5	16	24.8	628.0	1209.0
22882	50 G 1.5	16	27.0	749.0	1449.0
22883	61 G 1.5	16	29.8	912.0	1712.0
22545	2 x 2.5	14	9.1	48.0	115.0
22546	3 G 2.5	14	9.7	72.0	162.0

Part no.	No. cores x cross-sec. mm ²	AWG, approx.	Outer Ø mm, approx.	Cu-weight kg/km	Weight kg/km, approx.
22547	4 G 2.5	14	10.5	96.0	196.0
22548	5 G 2.5	14	11.7	120.0	230.0
22549	7 G 2.5	14	13.9	168.0	312.0
22550	12 G 2.5	14	17.0	288.0	532.0
22551	18 G 2.5	14	20.2	432.0	762.0
22552	20 G 2.5	14	21.4	480.0	858.0
22553	25 G 2.5	14	25.0	600.0	998.0
22554	4 G 4	12	13.3	154.0	283.0
22555	5 G 4	12	14.7	192.0	349.0
22556	7 G 4	12	17.8	269.0	498.0
22557	4 G 6	10	14.9	230.0	432.0
22558	5 G 6	10	16.6	288.0	529.0
22559	7 G 6	10	20.1	403.0	782.0
22560	4 G 10	8	18.8	384.0	685.0
22561	5 G 10	8	21.0	480.0	817.0
22562	7 G 10	8	25.4	672.0	1023.0
22563	4 G 16	6	21.9	614.0	1042.0
22564	5 G 16	6	24.5	768.0	1292.0
22565	7 G 16	6	29.7	1075.0	1709.0