

✗ Cat6 23 AWG copper cable

✗ U/UTP no overall screening

✗ No conductor screening

✗ Outer sheath colour: violet

✗ Reaction-to-fire class according to EN 13501-6: B2ca

✗ Smoke development class according to EN 13501-6: s1a

✗ CIBSE TM65 Embodied Carbon: 96.389 kg CO2e

## Product Overview

Excel solid Cat6 ethernet cable U/UTP 23 AWG LSOH CPR B2ca manufactured and tested to the TIA/EIA 568-B.2-1, EN50173-1 and ISO/IEC 11801 Cat 6 specifications, 305 m or 500 m. Each cable consists of 8 colour coded solid copper conductors twisted together to form four pairs.

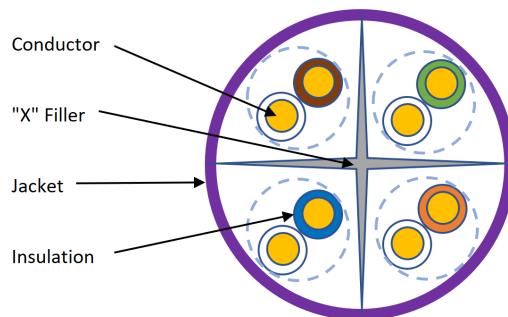
These are then formed around a central X-shaped polyethylene centre with the whole cable produced in a LSOH sheath.

## Product Specifications

Feature	Values
Conductor surface	Bare
Diameter of conductor	0.55 +/-0.01
AWG size	23
Conductor category	Class 1 = solid
Total number of cores	8
Stranding element	Pairs
Core insulation	Solid HDPE

Specification core insulation	Polyethylene (PE)
Core identification	Colour
Overall screening	None
Conductor screening	None
Outer sheath material	Copolymer, thermoplastic (LSOH)
Outer sheath colour	Violet
Flame retardant according to IEC 60332-1-2	yes
Reaction-to-fire class according to EN 13501-6	B2ca
Smoke development class according to EN 13501-6	s1a
Euro class flaming droplets/particles according to EN 13501-6	d0
Euro class acidity according to EN 13501-6	a1
Outer diameter approx.	6.2 mm
Installation Temperature Range	-10...60 °C
Operating Temperature Range	-10...60 °C
Category	6
NVP value	65 %

### Cross-section diagram



## Cable specifications

Features	Values
Pair-to-Ground Capacitance Unbalance	≤330pF/100m
Mutual Capacitance	≤5.6nF/100m
Max.Delay Skew(ns/100m)	≤45ns/100m
Max.Conductor DC Resistance @ 20 Deg.C	95 (Ohm/km)
Min.Insulation Resistance(Mohm.km)	5000
Dielectric strength	DC ,1KV/min
MBR during installation	8x cable OD
MBR installed	4x cable OD

## Standards

Applicable standard	Detail
ISO/IEC 11801:2017	Information technology - Generic cabling for customer premises: Part 1 General Requirements
IEC 61156-5:2020	Multicore and symmetrical pair/quad cables for digital communications - Part 5: Symmetrical pair/quad cables with transmission characteristics up to 1000 MHz - Horizontal floor wiring - Sectional specification
EN 50173-1:2018	Information technology. Generic cabling systems - General requirements
EN 50173-2:2018	Information technology. Generic cabling systems - Office premises
BS EN 50288-3-1:2013	Multi-element metallic cables used in analogue and digital communication and control. Sectional specification for unshielded cables characterised up to 250 MHz
EN 50399:2011+A1:2016	Common test methods for cables under fire conditions. Heat release and smoke production measurement on cables during flame spread test. Test apparatus, procedures, results
IEC 60332-1-2:2004 + A12:2020	Tests on electric and optical fibre cables under fire conditions. Test for vertical flame propagation for a single insulated wire or cable. Procedure for 1 kW pre-mixed flame
ANSI/TIA 568-D:2015	Balanced Twisted-Pair Telecommunications Cabling and Components Standards
IEC 60754-2:2014	Test on gases evolved during combustion of materials from cables - Part 2: Determination of acidity (by pH)

	measurement) and conductivity
IEC 61034-2:2005+A2:2020	Measurement of smoke density of cables burning under defined conditions – Part 2: Test procedure and requirements
EN 50575:2014 + A1:2016	Power, control and communication cables — Cables for general applications in construction works subject to reaction to fire requirements
IEEE 802.3bt (Type 4)	Compliant to IEEE 802.3bt (Type 4)
Directive 2008/98/EC (WFD)	Waste Framework Directive — compliant. Implemented in the UK through the Waste (England and Wales) Regulations 2011 (SI 2011 No. 988).
ECHA SCIP Database	Compliant; product does not contain SVHCs (Substances of Very High Concern) as defined under REACH Article 33(1). Submission obligations met under EU REACH and UK REACH.
Regulation (EU) 2019/1021 (POPs)	EU Regulation on Persistent Organic Pollutants — compliant. For Great Britain, compliance is aligned with the Persistent Organic Pollutants (Amendment) (EU Exit) Regulations 2020 (SI 2020 No. 1355).
RoHS-II/-III (2011/65/EU & 2015/863): 2023	Our products, demonstrate full adherence to the regulatory stipulations of the EU Directive 2011/65/EU (RoHS-II) and its corresponding delegated directive 2015/863 (RoHS-III).
Directive (EU) 2015/863 (RoHS III)	Amending Directive 2011/65/EU to add four phthalates (DEHP, BBP, DBP, DIBP) to Annex II — compliant.
UK SI 2012 No. 3032	The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012 (UK RoHS) — compliant for Great Britain. Retained EU law, as amended by the Product Safety and Metrology (Amendment etc.) (EU Exit) Regulations 2019.
WFD: 2023	Compliant to Waste Framework Directive
SCIP: 2023	Compliant - Does Not Contain Substances of Concern In articles as such or in complex objects (Products)
POPs (EU) No 2019/1021	EU Regulation for the restriction of Persistent Organic Pollutants.

### Part Number Table

Part Number	Description
190-071	Excel Solid Cat6 Cable U/UTP 23AWG LSOH CPR B2ca 305 m Box Violet
190-078	Excel Solid Cat6 Cable U/UTP 23AWG LSOH CPR B2ca 305 m Box Black
190-097	Excel Solid Cat6 Cable U/UTP 23AWG LSOH CPR B2ca 305 m Box Red
190-098	Excel Solid Cat6 Cable U/UTP 23AWG LSOH CPR B2ca 305 m Box Blue
190-099	Excel Solid Cat6 Cable U/UTP 23AWG LSOH CPR B2ca 305 m Box Yellow

Excel is a world class premium performing end to end infrastructure solution designed, Manufactured, supported and delivered without compromise.

Contact us at [sales@excel-networking.com](mailto:sales@excel-networking.com)

E&OE. Excel is a registered trade name of Mayflex Holdings Ltd.

**excel**  
without compromise.