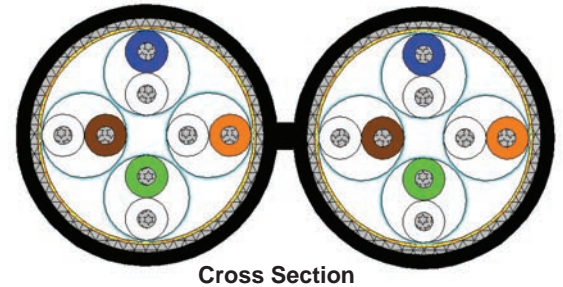
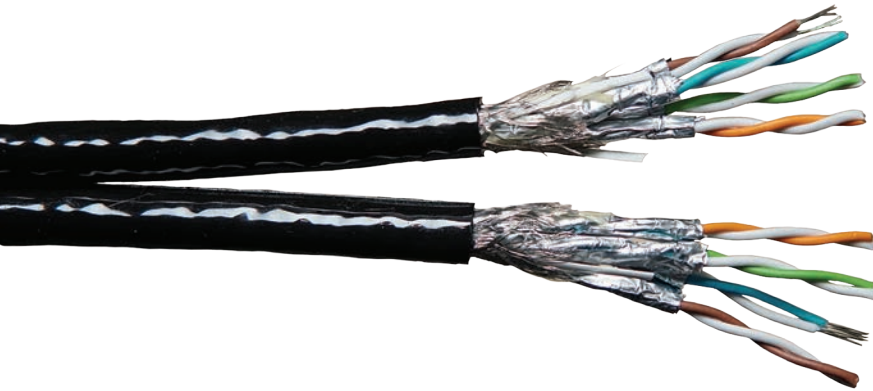


The World's Most Durable Ethernet Cables



Dependable, highest quality ProPlex Ethernet cables - From the Super Bowl Half-Time Show, to the Academy Awards, to a rock concert near you, the industry standard for entertainment and live event networks.

Originally developed for the demanding professional live event market, ProPlex Ethernet Cables have since been proven in indoor, outdoor, and temporary underwater applications of all kinds. In addition to entertainment use, they are now trusted for the connection of many different portable networks, including; industrial, scientific, military, marine, communications, and more. The original roadworthy, dependable, verified Ethernet cables, they combine unsurpassed critical data integrity with outstanding durability, long-term reliability and optimum handling characteristics – all proven over many years of professional portable use, over five million meters of cable sold, and over millions of touring miles traveled.

Premium ProPlex CAT5e Ultra 2X Figure-8 S/FTP offers outstanding, fully verified Gigabit performance, extreme noise resistance and practically zero skew. Other superior performance benefits include:

- Full CAT5e performance and data integrity, verified up to 90m!
- Minimal transmission degradation, even after years of heavy use and abuse
- Kevlar reinforced, stranded conductors for long-term portable reliability
- Tear and cut-proof UV-resistant outer jacket
- Suitable for use in CAT6 applications
- Excellent DC resistance. Low attenuation. Low N.E.X.T. (Near-end crosstalk loss).
- High tensile strength. Extreme durability. Easy handling and coiling.

RoHS
Compliant

| General Specifications | |
|---|---|
| Part Number | PCCAT5EPU2X |
| Conductors | 24 AWG [0.25 mm ²] tinned copper, 7x0.20 mm |
| Insulation | Cellular PO, Nom. Dia. 0.055" [1.4 mm] |
| Color Code | White/Blue X Blue; White/Orange X Orange; White/ Green X Green; White/Brown X Brown. |
| Assembly | Pairs individually shielded and cabled with strength yarns. |
| Shields | Inner: Individual aluminum foil for each pair, 100% coverage. Outer: tinned copper braid, 80% coverage |
| Jacket | Black, UV resistant industrial grade PU compound. |
| Marking | ProPlex PCCAT5EPU2X Ultra S/FTP 24AWG shielded 100MHz Data Cable Cat5e verified [batch no.] |
| Weight | 94 lbs./mft [140 Kg/Km] |
| Outside Diameter | 0.63 x 0.31 in [15.9 x 7.9 mm] +/-0.012 in [0.3 mm] |
| Bend Radius | 75 mm min. |
| Max. tensile force during installation | 150 N |
| Drag Chain | May be used in drag chain (cable carrier) applications. Avoid surface contact between cables with different jacket materials, or abrasion may result. |
| Temperature Rating | Operational: -40 to +70 °C |
| Compliance | Flame test: IEC 60332.1 Environmental: per IEC 61156-6 and ISO/IEC 11801 RoHS compliance: RoHS-2 2015/863/EU |

| General Information | |
|--|--|
| A dual 4-pair, 24 AWG, 100 Ohm S/FTP round patch cable, designed to the ISO / IEC 11801 Category 5e requirements. | |
| Each sub-cable contains 4 twisted pairs, cabled, double shielded with Kevlar reinforcement strands, jacketed in black UV resistant polyurethane. Designed for fixed or portable applications in harsh environments. | |

| Electrical Specifications | |
|----------------------------|-------------------------------------|
| Velocity of Propagation | 78% nom. |
| Impedance | 100 +/- 5 Ohm (100 MHz) |
| Delay Skew | 25 ns/100 m max. |
| Dielectric Strength | VAC/1min - 700V/min |
| Capacitance | 42 pF/m nom. @1 KHz |
| Resistance Unbalance | 2% max @ 20 °C |
| Capacitance Unbalance | 1.4 pF/m max. @ 800 Hz |
| Insulation Resistance | 5000 M Ohm / Km Min. |
| DC Resistance | 93 Ohm/Km @ 20 °C |
| Typical channel length | Up to 90 m @ 20 °C |
| Alien cross talk | Proven by design per IEC 61156-6 |
| Coupling Attenuation | Type I per IEC 61156-6 |
| Transfer impedance | Grade 1 per IEC 61156-6 |
| Transverse conversion loss | Level A per IEC 61156-6 |

| Transmission Performance | | | | |
|--|--------|--------|----------|---------|
| | 10 MHz | 16 MHz | 62.5 MHz | 100 MHz |
| Attenuation db/10m nom. | 0.65 | 0.85 | 2.0 | 2.5 |
| N.E.X.T (Near-End Crosstalk Loss) db min. | 58 | 56 | 45 | 43 |
| ACR db min. | 57.2 | 54.9 | 42.6 | 40.1 |

| Reeling Capability | |
|--|--|
| In the core level, under the shields, are 4 conductor pairs and 6 strength members, 3 white and 3 yellow. Two central strength members perform a "tension relief" function. The other 4 are twisted around the pairs, each pair is wrapped in a strength member to perform a "pair structure holding" function. The reason for two types of strength members is that each one has a different prolongation constant – one positive, the other negative – so on average the length of the strength members remains constant and equal to the wire length. | |
| To install on a reel, please use the following guidelines: | |
| <ul style="list-style-type: none"> • Minimum reel core diameter is 10 cm. • Minimum tension to be used during reeling and unreeling process. • Terminate the cable with plugs before reeling is initiated. • Cable length per reel is 90 meters or less. | |

**ProPlex CAT5e Ultra Ethernet cable meets attenuation specs
up to 90 m (295 ft); meets all other CAT5e performance
specs up to 100 m (328 ft)**

PUR Jacket Properties

Jacket Compound Specification

Halogen Free Flame Retardant Polyether-based Polyurethane, Glossy finish. Excellent Hydrolysis resistance. High microbial resistance. UV resistant. High flexibility.

Jacket Testing Results

| Test | Test Method | Result |
|--|-------------|-----------------------|
| Density | DIN 53479 | 1.15g/cubic cm |
| Tensile strength | DIN 53504 | 40 nom. N/sqmm |
| Tensile strength after 42 days, H2O 80°C | DIN 53504 | 30 N/sqmm |
| Ultimate elongation | DIN 53504 | 550 nom. % min. |
| 20% modulus | DIN 53504 | 3.2 N/sqmm |
| 100% modulus | DIN 53504 | 5.5 N/sqmm |
| 300% modulus | DIN 53504 | 12 N/sqmm |
| Tear strength | DIN 53515 | 60 N/mm |
| Hardness shore A | DIN 53505 | 87 |
| Hardness shore D | DIN 53505 | 36 |
| Melt index- MVR | ISO 1133 | 30-60 cubic cm/10 min |
| Brittle point | DIN 53513 | -45°C |
| Abrasion Loss | DIN 53516 | 40 cubic mm |
| Compression set (23°C) 70h | DIN 53517 | 30% |
| Compression set (70°C) 24h | DIN 53517 | 50% |

PUR Jacket Chemical Resistance Chart

| Organic Substances | | | | Inorganic Substances | | | |
|------------------------|-------------|----------------|---------------|------------------------------------|-------------|----------------|---------------|
| Medium | Temperature | Concentration | Reaction | Medium | Temperature | Concentration | Reaction |
| Acetic Acid | Room Temp | 20% | slight | Acetic Acid | Room Temp | 20% | nil to slight |
| Acetone | Room Temp | 40% | poor | Acetic Acid 3N | Room Temp | | poor |
| Astm Fuel A | Room Temp | 4% | nil | Aluminium Chloride, Aqu. | Room Temp | 5% | nil |
| Astm Fuel B | Room Temp | 10% | nil | Ammonia, Aqu. | Room Temp | 10% | nil |
| Astm Fuel C | Room Temp | 18% | nil to slight | Aniline | Room Temp | | no resistance |
| Astm Oil 1 | 80°C | | nil | Barium Salts | Room Temp | cold saturated | nil to slight |
| Astm Oil 2 | 80°C | 3% | nil | Boric Acid | Room Temp | 100% | nil to slight |
| Astm Oil 3 | 80°C | 6% | nil | Calcium Chloride | Room Temp | cold saturated | nil to slight |
| Benzene | Room Temp | | poor | Calcium Nitrate | Room Temp | cold saturated | nil to slight |
| Butanol | Room Temp | | poor | Chromium Salts, Aqu. | Room Temp | cold saturated | nil to slight |
| Butyl Acetate | Room Temp | 40% | poor | Copper Salts, Aqu. | Room Temp | cold saturated | nil to slight |
| Citric Acid | Room Temp | | slight | Fe Chloride, Aqu. 5% | 40°C | | slight |
| Cutting Oil | Room Temp | | nil to slight | Hydrochloric Acid 20% | Room Temp | 20% | nil to slight |
| Cyclohexanol | Room Temp | 5% | slight | Hydrogen Peroxide | Room Temp | 3% | nil to slight |
| Dibutylphthalate | Room Temp | 40% | slight | Hydrogen Sulphide | Room Temp | | nil to slight |
| Diesel Oil | Room Temp | | nil to slight | Magnesium Salts, Aqu. | Room Temp | cold saturated | nil to slight |
| Diesel Oil | Room Temp | 5% | nil | Mercury | Room Temp | 100% | nil to slight |
| Diethylether | Room Temp | | nil to slight | Mercury Salts, Aqu. | Room Temp | cold saturated | nil to slight |
| Diethylprestone | Room Temp | | nil to slight | Nickel Salts, Aqu. | Room Temp | cold saturated | nil to slight |
| Dimethylformamide | Room Temp | | soluble | Nitric Acid | Room Temp | 20% | no resistance |
| Ethyl Alcohol | Room Temp | 100% | slight | Phosphoric Acid | Room Temp | 50% | nil to slight |
| Ethylacetate | Room Temp | 40% | poor | Potassium Carbonate, Aqu. (Potash) | Room Temp | | nil to slight |
| Ethylether | Room Temp | | slight | Potassium Chloride | Room Temp | cold saturated | nil to slight |
| Glycerin | Room Temp | | nil | Potassium Dichromate, Aqu. | Room Temp | | slight |
| Glycol | Room Temp | 2% | nil | Potassium Iodide | Room Temp | | nil to slight |
| Glysantin / Water 1:1 | Room Temp | | slight | Potassium Nitrate, Aqu. | Room Temp | | nil to slight |
| Glysantin / Water 1:1 | 80°C | | slight | Potassium Permanganate | Room Temp | | nil to slight |
| Hydraulic Oil | Room Temp | | slight | Potassium Sulphate, Aqu. | Room Temp | | nil to slight |
| Isopropanol | Room Temp | 12% | slight | Sea Water | Room Temp | 100% | nil |
| Isopropyl Alcohol | Room Temp | 100% | slight | Silver Salts, Aqu. | Room Temp | | nil to slight |
| Kerosene | Room Temp | 3% | nil | Sodium Bicarbonate, Aqu. (Soda) | Room Temp | | slight |
| Machine Oil | Room Temp | | nil to slight | Sodium Chloride, Aqu. | Room Temp | | nil to slight |
| Methanol | Room Temp | 10% | slight | Sodium Chloride Solution, Conc. | Room Temp | | nil |
| Methyl Alcohol | Room Temp | 100% | slight | Sodium Hydroxide Solution 1N | Room Temp | | slight |
| Methylen Chloride | Room Temp | | no resistance | Sodium Thiosulphate, Aqu. | Room Temp | | nil to slight |
| Methylethylketone | Room Temp | 45% | poor | Sulphur | Room Temp | 100% | nil to slight |
| Mineral Oil | 80°C | | nil | Sulphur Dioxide | Room Temp | | slight |
| Olive Oil | Room Temp | | nil | Sulphuric Acid 20% | Room Temp | | slight |
| Paraffin Oil | Room Temp | | nil to slight | Toluene | Room Temp | 35% | poor |
| Siccinic Acid, Aqu. | Room Temp | cold saturated | nil to slight | Water | 100°C | | poor |
| Vegetable Oil And Fats | Room Temp | | nil | Water | Room Temp | | nil |
| | | | | Water | 80°C | | nil to slight |

Key:

Nil: Resistance over a prolonged period.
 Nil to slight: After a certain time appreciable differences are noticeable.
 Slight: Conditionally resistant.
 Poor: Short term contact possible under certain conditions.
 No resistance: Pronounced attack