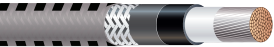# 20 TOP BENEFITS

OF TELCOFLEX® CABLES FOR TELECOM POWER

Written by **Dr. Yuhsin Hawig**, VP of Applications Engineering and **Erika Akins**, Chief Applications Engineer

VERSATILE APPLICATIONS

Five TelcoFlex® constructions (L2, L3, L4, L5, and L6) can be used for central offices (CO), CATV head-end, data centers, and cell towers. L5 and L6 are grounding cables for conduits or underground ducts.
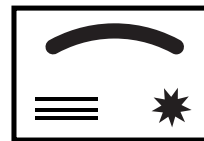
STRINGENT QUALIFICATIONS

Qualifications were performed by Southwire's Cofer Technology Center, established in 1992. It is an ISO-17025 accredited and UL & CSA certified facility, specializing in electrical, mechanical qualifications, and accelerated aging tests.
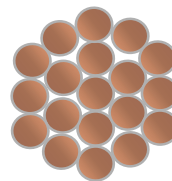
QUALITY COPPER

Southwire Continuous Rod (SCR®) Systems provide more than half of the copper continuous-casting capacity worldwide. The highest quality copper rod is transformed into fully annealed pure copper conductors used in all TelcoFlex® products.
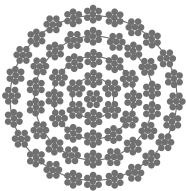
FLEXIBLE STRANDING

TelcoFlex® L2, L4, and L6 constructions are highly flexible due to ropelay conductors. Class K stranding is used on sizes 14-10 AWG. Class I stranding is utilized on sizes 6 AWG and larger per ASTM B172.
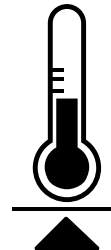
LIMITED SMOKE

TelcoFlex® cables are also certified for limited smoke FT4-ST1. The insulation has an excellent Limited Oxygen Index (LOI) of 35% making the finished cable ideal for indoor installations such as the main switching facility or central offices.

BUY AMERICA(N)

We've got it
MADE IN AMERICA™

From drawing, annealing, extruding, shielding, and braiding, to jacketing, printing, and testing, TelcoFlex® cable production takes place at one of Southwire's ISO-registered facilities in USA. Buy America and Buy American compliant to support any Bipartisan Infrastructure Bill programs.

GLOBAL CERTIFICATIONS

Fully compliant with US, Canadian, and global industry standards including UL 44, UL 2731, CSA C22.2 No. 210, IEC 60674, IEC 60332, ATIS-0600017.2014, and Telcordia GR-347-CORE. Cables are marked with Southwire's UL E-file # E30117.

CORROSION PROTECTION

The individual strands in the TelcoFlex® conductor are coated with tin. The tinning of copper strands per ASTM B33 are more receptive to soldering and improves corrosion resistance compared to uncoated copper.

FLAME RETARDANCY

The polyolefin-based insulation in TelcoFlex® cables is a flame retardant compound certified for FT4 flame rating per UL-44. FT4 or IEEE 1202 is a vertical-tray fire propagation test with an equivalent thermal energy of 70,000 Btu/hour and a test duration of 20 minutes.

THERMAL STABILITY

The thermoset or crosslinked insulation exceeds UL-44 and allows the cables to be operated up to 90°C wet or dry continuously. 130°C is the maximum temperature under emergency overload and 250°C is the upper temperature limit for short circuit conditions.

Southwire®

20 TOP BENEFITS
## OF TELCOFLEX® CABLES FOR TELECOM POWER

OIL RESISTANCE

L5 and L6 designs contain UL listed XHHW-2 conductors and are rated for oil resistance (Oil Res II). The insulation passed an accelerated oil test as it maintained a minimum of 65% of the original tensile strength and elongation values after immersion in IRM 902 oil for 60 days at 75°C.

VARIOUS COLORS

The barrier layer enables Southwire to design cables with a variety of color marking options. Five colors including black, gray, green, blue, and red can be offered for easy identification during and after installations.
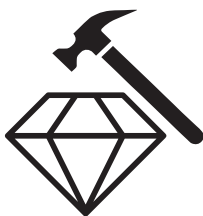
SUPERIOR DURABILITY

TelcoFlex® cables are enhanced with a durable cotton braid with excellent mechanical strength and physical integrity. The thick layer of the saturated cotton braids minimizes tearing and prevents punctures of the cable during challenging long pulls or damage during transit and handling.

ENVIRONMENTAL REGULATION

TelcoFlex® products are 100% lead-free and are fully compliant with REACH (Registration, Evaluation, Authorization, and Restriction of Chemicals), which is a European Union Commission (EUC) regulation on chemicals and their safety.

IMPACTFUL BRAND

TelcoFlex® cables are among the premier LSZH products for telecom AC/DC infrastructure upgrade projects. It is used to power cell tower equipment in a shelter environment, fiber head-end operations, distributed antenna systems (DAS), common controllers, intelligent network, generators, and critical battery backup supply systems.

MOISTURE REPELLENCY

A saturant over the cotton braid creates an overall barrier for TelcoFlex®. This protective layer is composed of a unique formulation which is hydrophobic in nature to mitigate moisture intrusions into the cable core and to prevent premature cable failures long term.

LABOR SAVINGS

Excellent performance during Force to Bend and Spring Back qualification tests for TelcoFlex® cables. This serves to reduce the labor and time during handing, pulling under tension, tight bending, and installations. The overall project savings up to 25% have been validated by contractors.

ULTIMATE SAFETY

In case of fire or under prolonged extreme emergency loading conditions, LSZH TelcoFlex® designs can reduce the amount of toxic and corrosive gases emitted during overheating and combustion which causes major safety concerns.

PROVEN HISTORY

2022

1950
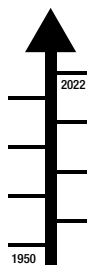
With over 70 years of design and manufacturing expertise, Southwire has demonstrated a long history of innovation to exceed customer needs. Installers, project managers, and procurement have been specifying TelcoFlex® cables for telecommunications or 2G/3G/4G/5G projects for over three decades.

EFFECTIVE TOOLING

Southwire offers a full line of Voice, Data, Video (VDV) tools, including cable cutters, strippers, crimpers, and punchdown devices, as well as cable tracers and testers. We provide the most effective tooling solutions with quality and performance excellence that make a key difference on the jobsite!

Southwire®