

Corning Cable Systems is changing the way you think about outside plant cable installation with its innovative new cable jacket design, FastAccess[™] Technology.

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Questions about FastAccess™ Technology

What is FastAccess Technology?

FastAccess Technology is an innovative cable jacket design that allows an installer to peel the jacket away quickly and easily. And yet, the jacket still provides all the ruggedness, reliability and durability required for an outside plant cable.

This game-changing technology, invented by Corning Cable Systems, makes it dramatically faster to access the cable, reducing access time by at least 50 percent – often much more. FastAccess Technology can significantly improve safety for the installer, by reducing or eliminating the use of sharp blades, and for the fibers inside the cable, by reducing the amount of force required to remove the jacket.

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What drove the development of FastAccess Technology?

Installers have been accessing outside plant cables in the same manner for nearly 30 years. These techniques were time consuming and risky to both the installer and cable itself. Corning worked with our customers to gain a deep understanding of how our customers use our products, and identified this difficult and sometimes dangerous task as a way to truly improve the way our customers do their work on a daily basis.

Which Corning cables are available with FastAccess Technology?

Currently Corning offers FastAccess Technology on two of its outdoor cable types: ALTOS® All-Dielectric Gel-Free Cables and ROC[™] Drop Dielectric Cables.

How do I know if my cable has the FastAccess Technology advantage?

You can quickly identify the cable by looking at the print statement on the cable. All Corning cables with FastAccess Technology will include the words "FastAccess Technology" in the print statement.



FastAccess[™] Technology

Is FastAccess[™] Technology proprietary to Corning Cable Systems?

Yes. Corning developed this technology and has extensive intellectual property.

How does Corning Cable Systems make the jacket peel away so easily during installation while maintaining reliability?

While the exact method we use to develop this peelaway durable jacket is proprietary, Corning Cable Systems used its expertise in materials science and precision extrusion to alter certain aspects of the cable jacket to allow the peeling functionality while maintaining the durability and robustness of a medium-density polyethylene jacket.

Will a cable with FastAccess Technology open accidentally through twisting or normal installation stresses?

Absolutely not! Although the cable peels with ease during cable prep, we've designed the technology so that the cable meets or exceeds all industry specifications and standards for outside plant cable. Extensive testing was performed for two years in both lab and field environments to ensure the highest cable integrity under extreme outdoor conditions and over the lifetime of the cable and assemblies. We fully understand how a field failure of this type would affect customers and have designed and tested the cable to ensure the highest level of reliability. We've provided testing documentation and videos that demonstrate both the lab and field testing.

How does the performance of cables with FastAccess Technology compare to standard cables?

The optical, mechanical and physical performance of FastAccess Technology cables meets or exceeds the same industry performance criteria as its standard cable counterparts.

Can cables with FastAccess Technology be installed in all outdoor application spaces?

All standard installation methods and environments where you would place the traditional cable type are also ideal conditions for these cables with FastAccess Technology. The operating and installation temperature ranges for cables with FastAccess Technology are identical to those of standard cables. Of course, Corning does not recommend direct burying any nonarmored cable, so cables with FastAccess Technology should be deployed in aerial or duct environments, just as dielectric cables with a standard jacket should be.

Can I still purchase standard ALTOS[®] or ROC[™] Drop Cables that don't include FastAccess Technology?

Yes, standard cables are still available. See the productspecific sections of this document for details and more information.



FastAccess[™] Technology

Questions about ALTOS[®] Cable with FastAccess[™] Technology



Are there other ways to identify an ALTOS[®] Cable with FastAccess[™] Technology?

Yes. In addition to the print statement, installers will notice two locator ridges that run along the length of the cable. These ridges are very slight and are used to aid the installer in the sheath removal process but do not affect the installation of the cable itself in any way.

Is ALTOS Cable with FastAccess Technology available in all fiber types and all fiber counts?

Yes, cables will be available in all multimode and singlemode fiber types and fiber counts from 2 to 288.

What tools do I need to strip ALTOS Cable with FastAccess Technology?

For end-span cable access, the only tools needed are a pair of needle-nose pliers, side-cutting or diagonal lineman's pliers, and electrical tape. No sharp blades are required. For mid-span access, you will still require a hook blade or similar tool to create the initial access point to begin peeling back the jacket.



Does ALTOS Cable with FastAccess Technology pass all industry standards?

Yes. ALTOS Cable with FastAccess Technology is designed and tested to ANSI/ICEA S-87-640 and is RDUP PE-90 and Telcordia GR-20 compliant, just like standard ALTOS Cable.

What is the temperature range for ALTOS Cable with FastAccess Technology?

It is the same as for standard ALTOS Cable: an operating temperature of -40° to $+70^{\circ}$ C (-40° to $+158^{\circ}$ F) and an installation temperature of -30° to $+70^{\circ}$ C (-22° to $+158^{\circ}$ F).



FastAccess[™] Technology

What kind of lab testing did Corning do to ensure ALTOS[®] Cables with FastAccess[™] Technology are robust enough to handle the outdoor environment?

Corning ensured long-term reliability of these cables by performing rigorous testing according to industry standards, and application-based testing that exceeds industry standards. Mechanical and environmental tests performed include hot bend, cold bend, crush, cyclic flex, impact, twist, temperature cycling, cable aging and water penetration. Corning Cable Systems conducted several characterization tests that exceeded industry requirements – including extreme twisting at various temperature ranges and piercing the cable then twisting under high tension – yet the mechanical integrity of the cable was maintained. All tests passed optical attenuation criteria and caused no splitting or cracking of the cable jacket.

What kinds of field testing did Corning do to ensure ALTOS Cable with FastAccess Technology can handle environmental and installation stresses as a traditional cable jacket does?

We used our world-class outdoor installation test bed in Winston-Salem, NC, to put FastAccess Technology through its paces and ensure that it would perform in the field exactly as traditional cable jackets do.

Installations included pulling, pushing and aerial selfsupport placements that subjected the cables to constant UV radiation. Cables were driven over multiple times, at varying speeds, using an 8,000-lb bucket truck. Cables have been jetted, simulating a 7,272-ft installation using jetting equipment at 250 feet per minute. Manholes have been dropped on the cable jackets, and heat guns have been applied to the cables for preparation in closures. In each case, the cable jacket maintained structural integrity and there was no added optical loss or fiber breaks.

Will ALTOS Cables with FastAccess Technology still contain a ripcord?

For a limited time, ALTOS Cables with FastAccess Technology will contain a ripcord to aid those installers unfamiliar with the technology. Starting in early 2013, ALTOS Cables with FastAccess Technology will be manufactured without a ripcord.

Is the part number changing?

Yes, there is a change in our standard ALTOS part number. The ninth digit in the part number is changing from a "1" to a "7." The "7" denotes FastAccess Technology. For example:

- 12-fiber, single-mode ALTOS Cable is 012EU4-T4101D20
- 12-fiber, single-mode ALTOS Cables with FastAccess Technology is **012EU4-T4701D20**

Can I still purchase standard ALTOS Cables that don't include FastAccess Technology?

Yes, these cables are still available. However, the majority of ALTOS Cable in distributor inventory will be ALTOS Cable with FastAccess Technology.



FastAccess[™] Technology

Questions about ROC[™] Drop Cable with FastAccess[™] Technology



What fiber types are available?

Standard product offering fiber types are singlemode fiber (OS2, ITU-T G.652D) and Corning[®] ClearCurve[®] Single-mode Fiber (OS2, ITU-T G.657 A2).

What tools do I need to strip ROC[™] Drop Cable with FastAccess[™] Technology?

The only tools required are serrated scissors or side-cutting pliers and electrical tape.

Does ROC Drop Cable with FastAccess Technology pass all industry standards?

Yes. ROC Drop Cable with FastAccess Technology is designed and tested to ICEA S-110-717 and IEC 60794-3, and is Telcordia GR-20 compliant. These are the same standards that standard ROC Drop Cable meets.

What is the temperature range for ROC Drop Cable with FastAccess Technology?

It is the same as for standard ROC Drop Cable: an operating temperature of -40° to +70°C (-40° to +158°F) and an installation temperature of -30° to +70°C (-22° to +158°F).



What kind of lab testing did Corning do to ensure ROC Drop Cables with FastAccess Technology are robust enough to handle the outdoor environment?

Corning ROC Drop Cables with FastAccess Technology are designed to withstand the forces encountered in outside plant installations. Corning ensured long-term reliability of these cables by performing rigorous testing according to industry standards, and application-based testing that exceeds industry standards and field trial installations. Mechanical and environmental tests performed according to ICEA S-110-717 and IEC 60794-3 include hot bend, cold bend, crush, cyclic flex, impact, twist, temperature cycling, cable aging and water penetration. Corning Cable Systems conducted application-based characterization tests that exceeded industry requirements and maintained the mechanical integrity of the cable. These tests included extreme twisting at various temperature ranges, piercing the cable then twisting under high tension, and opening the cable and placing at high tension while dead-ended by a telephone drop wire p-clamp. All tests passed optical attenuation and caused no splitting or cracking of the cable jacket.



