TEIJIN

Human Chemistry, Human Solutions

Making the zetta world possible

Market developments

Global competitiveness now depends on establishing and extending high-speed connectivity and the drive to lay fast cable networks is just taking off in many parts of the world. Given that we are so dependent on these networks, reliability is becoming increasingly important.

With more data being transmitted over longer distances, more cables are required and smaller diameters are essential. Fiber-optic cables are the primary tool for both core and edge connections. At Teijin Aramid, we have over two decades of experience developing innovative aramid products that strengthen and protect such cables. As IP traffic grows, the demand for ever higher transmission speeds will continue to grow. With our high-performance aramid Twaron, the industry can move beyond peta and exabytes into zettabytes per second (10^{21}).

Key benefits when using Twaron

- Easy installation
- Long cable lifetimes
- Makes long spans possible
- Ensures reliable connecterization
- Enables minimum cable diameters
- Water-blocking available

Twaron®

The power of Aramid

Meeting the need for future-proof cables
Today's fiber-optic cables need enhanced protection and this is precisely what our high-performance aramid fiber Twaron provides. It has a set of unique properties that make it highly suitable for fiber optic applications. Twaron is now an integral part of the cable package.

Ideal properties
Twaron's high modulus value – combined with high strength – form a unique mix that's further enhanced by its dielectric properties and its resistance to corrosion and high temperatures. What's more, its flexibility facilitates reliable mechanical fixation of the cable, including good connectorization. Finally, its small negative coefficient of thermal expansion increases the temperature performance of the cable. These properties make it an excellent alternative to steel and E-glass. Twaron reinforced cables also have enhanced resistance to electrical discharges, lightning strikes, ice load, storms, and earthquakes.

Our innovative product concepts

Water-blocking: Twaron provides a cost-effective way to make fiber optic cables water-tight.

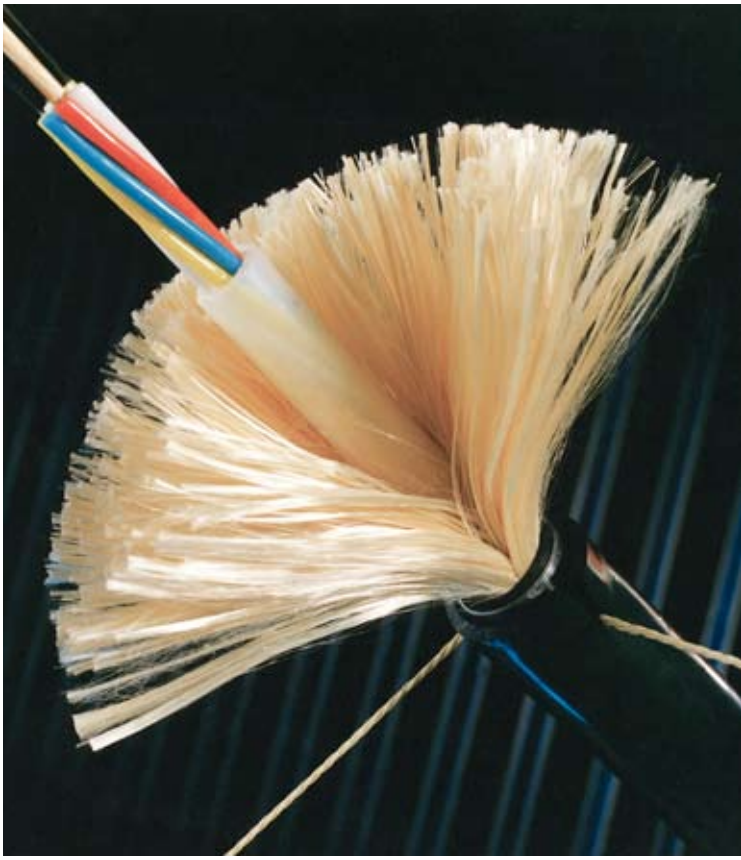
Anti-tracking: extends the life-time of All Dielectric Self-Supporting (ADSS) cables.

Twaron ripcords: can also be offered in a colored version. It is making installation more reliable.

Flexible small diameter aramid rods and ballistic tapes further broaden the products' potential.

Twaron is available in both high and standard modulus in linear densities ranging from 420 to 20,000 dtex.

More reliable production
We regularly work with manufacturers to help them make cables in the most cost-effective and reliable way. Thanks to an optimal bobbin make-up, waste is reduced, and package stability is ensured. There is therefore hardly any machine downtime, leading to shorter changeover times and longer production runs. In short, Twaron equals increased manufacturing productivity.



Applications
Twaron offers distinct advantages in a wide range of applications, including:
- ADSS cables
- Premises cables
- FTTX cables
- Duct cables

Partnership
Our engineers have built up unique knowledge of the use of aramid in cable applications over the years. As a leading global supplier to the OFC market, we work closely with partners in the industry to arrive at the most cost-effective and reliable solutions. We're committed to developing high-tech ways to reinforce optical fiber cables and will continue to optimize our products.

For more information, please email us at
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