


The Teijin logo is displayed in a bold, red, italicized sans-serif font.

Human Chemistry, Human Solutions

A photograph of an offshore oil rig against a clear blue sky. The rig's structure is primarily white and orange, with several tall towers. A thick yellow cable is draped across the scene, starting from the left and looping around the rig's towers. The background is a solid dark blue.

# Enduring strength and reliability

## Demanding market

There is increasing demand for ropes and cables that can stand up to tough conditions. In the mining and offshore industry, key issues are longer lifespans, lifting heavier weights and reaching greater depths. As a result, there is a need for greater efficiencies and enabling technologies, putting even more pressure on ropes and cables.

Our para-aramids Twaron and Technora have a proven track record of helping to meet these demands. With a unique combination of properties, Twaron and Technora have major advantages over more traditional materials such as steel. At Teijin Aramid we try to find the optimal solution by co-creating with our partners.

### Key benefits when using our aramid

- Long lifespan
- Low weight
- High efficiency
- Low maintenance
- Good heat stability
- Long-term dimensional stability

**Twaron® | Technora®**

The power of Aramid

## A unique combination

Ropes and cables are widely used in the mining, offshore, and leisure industries. There are basically two main types of ropes and cables: those that are designed for static applications and those that are designed for dynamic applications. In contrast with static and (semi)-static applications, ropes are bent (over sheaves) in dynamic applications. Teijin Aramid is uniquely able to provide para-aramids that are suitable for both static and dynamic applications.

## Static applications

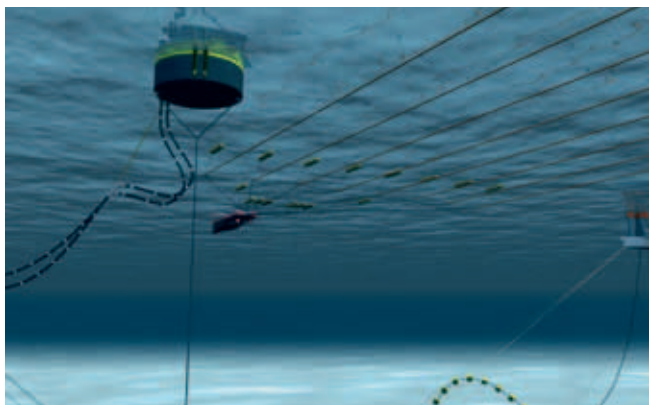
Twaron is the best choice where the highest possible modulus is required. It is therefore particularly suitable for (semi)-static applications where considerable loads are applied to ropes and cables for a long period of time. Twaron has the following unique properties:

- high modulus
- very low creep
- high strength
- low weight
- good resistance to corrosion, heat, chemicals and seawater

## Dynamic applications

Technora is particularly suitable for dynamic rope and cable applications. Technora has the following unique properties:

- good fatigue life
- excellent resistance to corrosion, heat, chemicals and seawater
- high strength
- low weight
- low creep



## Main applications

Twaron and Technora offer distinct advantages in a wide range of rope and cable applications, including:

- seismic/geophysical cables
- antenna cables
- vessel mooring lines
- fishing lines
- lifting slings
- emergency ropes for fire fighters
- paragliding ropes



## Adding the finishing touch

The benefits of using Twaron and Technora can be optimized by applying a range of surface treatments. There are two types of treatments: those that protect our para-aramids and those that add functionality to our fibers.

An example of the protective treatment is a marine finish: a special finish for long-term use in wet conditions. This finish will increase the fatigue life of your rope and cable applications. An example of the functionality adding treatment is a waterblocking treatment: a treatment which eliminates the need for an additional protection cover against water ingress.

## Working closely together

No matter whether you are looking for a parallel, braided or laid structure for your rope or cable application, and regardless of the industry you are operating in, our specialists will help you to find an effective solution.

For more information, please email us at [ropescables@teijinaramid.com](mailto:ropescables@teijinaramid.com) or visit [www.teijinaramid.com](http://www.teijinaramid.com)

*We do not accept any liability for the results of the use of these products. The technical data in this leaflet reflects our best knowledge at the time of publication. The content of this leaflet is subject to change, depending on new developments and findings, and a similar reservation applies to the properties described in it.*

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