

# TEIJIN

Human Chemistry, Human Solutions



## The sound of silence

### Meeting market demand

**Twaron pulp improves the performance of brake pads and linings as well as clutch facings, prolongs product lifetimes, and increases driver comfort. In terms of comfort in particular Twaron pulp makes a major contribution to reducing noise, vibrations and harshness (NVH).**

It's these unique properties that make Twaron pulp the material of choice for friction manufacturers around the globe. As brake dimensions are getting smaller, the performance of the materials used needs to be further enhanced – another strong argument for using Twaron. At Teijin Aramid we're continually developing advanced solutions that will meet both today's and tomorrow's needs.

### Key benefits when using Twaron

- Reduced noise, judder and vibrations
- Lower wear
- Polishing effect
- Less corrosion
- Improved strength
- Improved stability of edges
- Prevents cracks forming in pads

# Twaron<sup>®</sup>

The power of Aramid

### Key ingredient

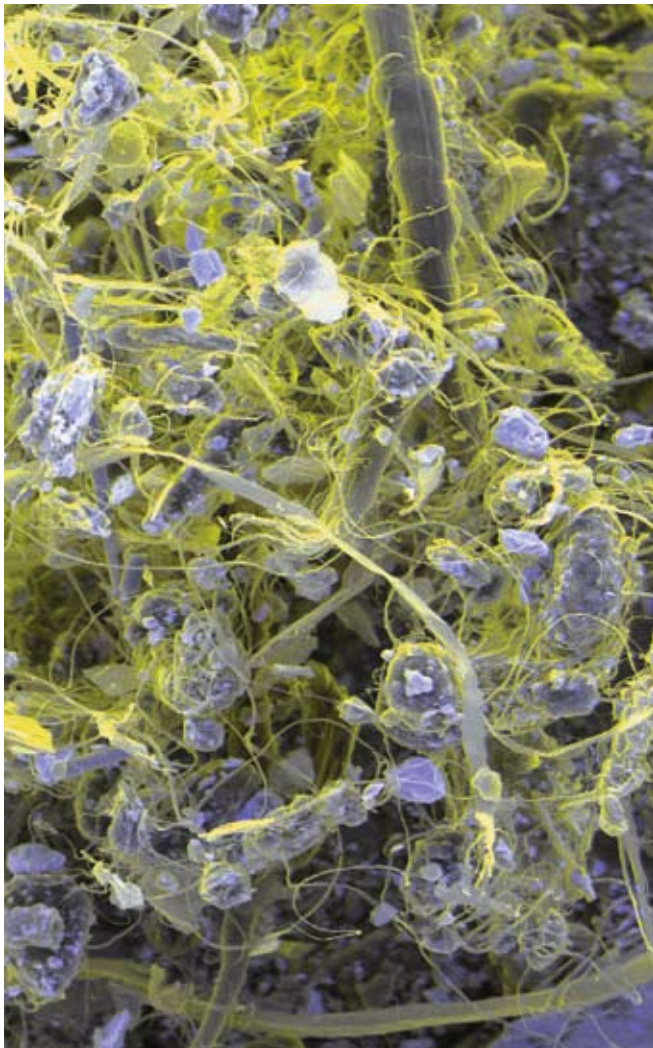
Modern friction materials contain a large variety of constituents. Twaron para-aramid fibers are an important component of today's high-performance friction formulations. They are available in various forms of pulp, short cut and staple fiber that give your formulations a decisive advantage.

### Powerful pulp

By including Twaron pulp, you combine the level of performance you require with a competitive price. Thanks to our extensive portfolio of products, we're able to offer a wide range of innovative solutions. Whether you require low or high fibrillation, long or short fiber length, with Twaron you get substantial additional benefits unmatched by other fibers.

### Making manufacturing easier

Twaron pulp – with its high bulk volume and excellent filler retaining properties – provides the basis for a stable matrix, preventing segregation. In addition, it has superior dust-binding properties.



### High-quality additive

Twaron pulp is a high-quality additive that enhances friction formulations, regardless of the other ingredients in the mix. Although added in small quantities, it's an essential component, which ensures that manufacturers can achieve today's high quality standards. What's more, as brakes become smaller, more heat is generated, thus strengthening the logic of including Twaron, which has high thermal stability and doesn't melt or shrink.



### A wide range of applications

Friction materials containing Twaron are used in brake pads and linings as well as in clutch facings in private cars, buses, commercial vehicles and heavy goods vehicles. They are also used in trains, trams, and subways, and in motorbikes, bicycles and three-wheelers. In addition, there are numerous industrial applications including elevators, cranes, and various other systems.

In all applications Twaron has a distinct advantage over other fibers when it comes to improving the strength, the wear resistance and noise reduction of your friction material.

For more information, please e-mail us at [friction@teijinaramid.com](mailto:friction@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.*

# Twaron®

The power of Aramid