SUAR™

Ultra-Wear-Resistant Series

In the bulk material handling industry, wear resistance is a critical property for all conveyor belts. Wear not only determines belt lifespan but also directly affects production stability and operating costs.

However, as operating conditions in mines, ports, and power plants become increasingly demanding, conventional wear resistance is no longer sufficient for high-intensity operations.

SUAR™ Ultra-Wear-Resistant Series

BOTON introduces the SUAR™ Ultra-Wear-Resistant Series — offering wear performance far beyond the strictest international DIN W standards, maintaining exceptional performance even under extreme conditions. Whether facing intense abrasion at high impact loading points, continuous friction during long-distance conveying, or all-weather operation in harsh open-pit mines, SUAR™ delivers longer service life and more stable performance, helping customers significantly reduce replacement and downtime costs. SUAR™ Ultra-Wear-Resistant — not just durable, but built for extremes.

Key Features

Wear-Resistant

Excellent wear resistance, with flagship models exhibiting lower abrasion than domestic standards.

Tear- and Impact-Resistant

The cover rubber offers excellent wear resistance, with strong tear and impact resistance.

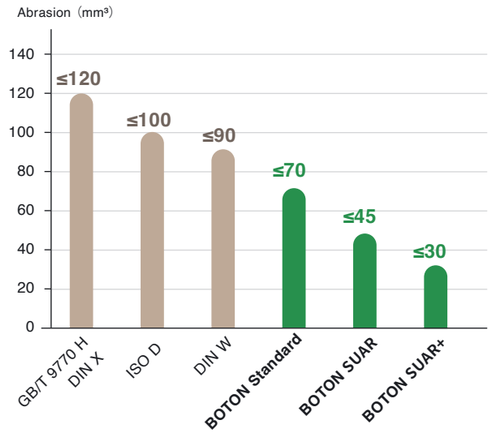
Excellent Adhesion

Strong interlayer adhesion prevents delamination, with resistance to weathering, ozone, and UV exposure.

Low Elongation

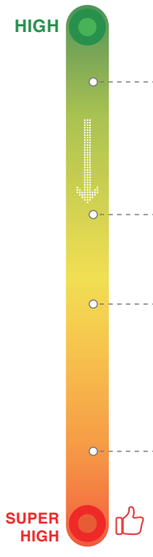
Excellent performance with low elongation, suitable for conveyor systems with short take-up travel.

Cover Rubber Performance



Note：
①DIN standards are widely used in Europe, especially in Germany.
②ISO standards are set by the International Organization for Standardization.
③Abrasion: In standard wear tests for conveyor belt cover rubber, the lower the abrasion value, the less rubber is worn, indicating better wear resistance.

Wear Resistance



SUAR™ W　High Strength

Suitable for applications with high impact resistance requirements, where cut and tear resistance are key considerations. It also offers good wear resistance, primarily used in the mining of quartz, granite, and other hard stones with sharp edges.

SUAR™ X　Ultra-High Strength　Cut-Resistant

Suitable for harsh conditions with simultaneous impact, cutting, tearing, and abrasion.

SUAR™ C　High Strength　Cold-Resistant

In cold regions, conveyor belts exposed outdoors can experience reduced cover rubber elasticity when temperatures drop below -30°C, causing the rubber to harden, become brittle, and prone to cracking. To address this, BOTON has developed a cold-resistant cover rubber that maintains good elasticity even at -50°C.

SUAR™ Chem　Acid- and Alkali-Resistant

Suitable for conveying materials with acidic or alkaline properties and high abrasion in the chemical industry.

SUAR™ Ultra-Wear-Resistant Series

Case Study / Application of SUAR™ Ultra-Wear-Resistant Conveyor Belts in Port Stockyard Reclaimer Systems

Project Background

Global mining giant’ s iron ore port project in Western Australia: In October 2018, BOTON deployed conveyor belts with SUAR™ ultra-wear-resistant cover rubber for high-intensity, high-frequency reclaimer operations.

Project Objectives: Extend belt service life, reduce splice failure risks, and control replacement frequency and inventory costs.

Challenges:

- High dust levels and severe material abrasion in the port environment
- Short conveyor belt replacement cycles; frequent splice issues pose safety risks and increase downtime losses

Operational Results

- In third-party testing, BOTON samples were selected among global suppliers for outstanding abrasion performance, being the only Chinese manufacturer to win the bid.
- Field data shows that the cover rubber on SUAR™ conveyor belts exhibits significantly lower wear per million tons of iron ore compared to international competitors.
  - Wear Rate Reduced By ↓ **27%** & **25%**
  - Extended Conveyor Belt Service Life ↑ **50%**
  - Annual replacement frequency reduced from **3** times to **2** ↓ , lowering safety risks during splicing ↓**33%**
  - Inventory and Procurement Costs ↓ **25%**

Customer Feedback

“…The service cycle target has been successfully met and even exceeded. SUAR™ conveyor belts show lower wear and stable performance over the same period, making them our current top choice.”

Case Study / Application of SUAR™ Ultra-Wear-Resistant Conveyor Belts on Reclaimer Booms

200%+ Extended Service Life

Project Background

In actual operation of a reclaimer boom conveyor belt at a well-known Australian mining company, the belt' s cover rubber wore out too quickly to meet expectations. BOTON' s SUAR™Ultra-Wear-Resistant series was used as a replacement.

Challenges:

- Production schedules and downtime were disrupted
- Increased conveyor belt costs (minimum $120K per replacement, including materials and labor)
- Conveyor belt life ended prematurely, failing to meet expectations
- Higher safety risks with frequent downtime interventions

Operational Results

- BOTON SUAR™ conveyor belts deliver stable and reliable performance, meeting and exceeding customer requirements, with extended service life. **200%+**
- For every 1 mm of conveyor belt wear, handling capacity increased to **780KT**, higher than the previous level. **47%**
- Effectively reduces downtime interventions and improves safety during maintenance, giving operators more time and space to focus on other critical tasks.