GRIP STAR™
FLAT BELTS THAT HOLD ON TIGHT

Symmetrical layer structure up to 6 mm thick for long service lives.

Innovative Medium Grip coating on both sides with tried-and-tested patterns.

Innovative High Grip coating on one side with tried-and-tested patterns on the top face.

Patterned polyurethane coating or fabric on the underside.

Tension member made of polyester fabric or highly oriented polyamide sheet.

Tension member made of polyester fabric or elastic polyurethane.

HIGH GRIP

MEDIUM GRIP
GRIP STAR™ — FLAT BELTS THAT HOLD ON TIGHT

Grip Star™ flat belts are gentle with products, but still convey reliably. They take hold of and release products at precisely the right times. Grip Star™ flat belts can process paper, boxes, corrugated cardboard and tissue-based products dependably and efficiently.

Grip Star™ leaves no marks and has all the benefits of rubber. However, it doesn’t include the typical disadvantages of rubber such as brittleness and cross-cracking. Due to its excellent characteristics and good value, Grip Star™ is the better alternative to rubber. This is particularly the case when good grip, precise positioning, high levels of acceleration and high-performance braking are required.

Customised grip
Grip Star™ is produced in High Grip or Medium Grip versions in different thickness and with specific surface patterns. As folder gluer belts, drag belts, live roller belts and machine tapes, the range’s belts fulfil exacting demands and offer a wide range of uses. The majority of the Grip Star™ belts comply with the (EC) regulations 1935/2004, (EU) 10/2011, as well as the FDA’s 21 CFR for conveying unpackaged food-stuff.

The properties

<table>
<thead>
<tr>
<th>The properties</th>
<th>The advantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>age-resistant coating with</td>
<td>application-driven grip</td>
</tr>
<tr>
<td>virtually constant grip</td>
<td>over the entire service life</td>
</tr>
<tr>
<td>available in Medium Grip or High Grip</td>
<td>a wide range of applications</td>
</tr>
<tr>
<td>coating in neutral gray</td>
<td>non-marking</td>
</tr>
<tr>
<td>EU- and FDA-compliant</td>
<td>ideal for hygiene-critical areas</td>
</tr>
<tr>
<td>mechanically durable,</td>
<td>long service life</td>
</tr>
<tr>
<td>highly abrasion resistant, edges</td>
<td></td>
</tr>
<tr>
<td>on P types are especially strong</td>
<td></td>
</tr>
<tr>
<td>maintains tension</td>
<td>no retensioning necessary</td>
</tr>
</tbody>
</table>

Grip Star™ leaves no marks and has all the benefits of rubber. However, it doesn’t include the typical disadvantages of rubber such as brittleness and cross-cracking. Due to its excellent characteristics and good value, Grip Star™ is the better alternative to rubber. This is particularly the case when good grip, precise positioning, high levels of acceleration and high-performance braking are required.
GRIP STAR™ – BETTER THAN RUBBER

The right grip for any job
Perfect splicing

Sophisticated Forbo tools and processes ensure Grip Star™ belts are given perfect splices:
- fast and reliable splicing
- short dwell times due to appropriate pressure applied
- almost invisible splices without any faults

The decrease in thickness of the Medium Grip coating is significantly lower than that of rubber.

Very robust

* Established in standardised testing conditions.

Long service lives, no cross tears

A new Grip Star™ belt
Grip Star™ after running 1000 hours**

The pattern on the Medium Grip coating doesn't wear off and the surface characteristics virtually don't change. In contrast to rubber, the surface doesn't tear.

Rubber after running 1000 hours**

** Established under standardised testing conditions.
GRIP STAR™ – TYPICAL APPLICATIONS

Printing industry
– in compensating stackers and bundlers
– in feeding and discharging
– in foil sealing

Postal/letter sorting
– as reversing belts
– as carrier belts

Offices
– in franking machines

Paper processing
– in enveloping machines
– in tissue processing
– in packaging machinery
– in winding cardboard tubes

Industrial production
– in the solar industry for wafer conveying

Almost all GripStar™ Medium Grip products are EU- and FDA-compliant. They can be used during the manufacture of packaging and in the process of packaging foodstuffs.
The values stated were identified in standard ambient conditions (23 °C, 50 % rel. humidity).

### Lower temperatures require larger drum diameters.

For the Polyamid line, this also applies in the case of low humidity.

** Relaxed specific shaft load at 1 % elongation at fitting and 180° arc of contact in N/mm belt width.

1) 10 mm to 2.8 m/s max

### Legend

- **E** = Polyester
- **P** = Polyamide P
- **R** = High Grip or Medium Grip
- **T** = Blended or Polyamide fabric
- **U** = Polyurethane
- **FDA** = FDA compliant
- **HC+** = Conductive belt surfaces + conductive over the thickness

** FSTR = Fine texture**

**GSTR = Coarse texture**

**NSTR = Normal texture**

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<table>
<thead>
<tr>
<th>Type code</th>
<th>E line (with polyester tension member)</th>
<th>P line (with polyamide tension member)</th>
<th>E line (with polyester tension member)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RR 4E-HC+ FSTR/FSTR grey</td>
<td>822151 1.35 14 4 0.3 – 2.0 1.40 –20/+70 ● ●</td>
<td>RR 10P-30 grey FDA</td>
<td>855638 3.0 40 10 1.5 – 3.0 3.30 –20/+80 ● ●</td>
</tr>
<tr>
<td>RR 4E-HC+ NSTR/NSTR grey</td>
<td>822154 1.35 14 4 0.3 – 2.0 1.40 –20/+70 ● ●</td>
<td>RR 10P-40 grey FDA</td>
<td>855639 4.0 40 10 1.5 – 3.0 4.30 –20/+80 ● ●</td>
</tr>
<tr>
<td>RR 20E-20 grey FDA</td>
<td>822157 2.0 24 23 0.3 – 2.0 2.10 –20/+70 ● ● ●</td>
<td>RR 14P-50 grey FDA</td>
<td>855640 5.0 60 14 1.5 – 3.0 5.80 –20/+80 ● ● ●</td>
</tr>
<tr>
<td>RR 20E-30 grey FDA</td>
<td>822148 3.0 30 23 0.3 – 2.0 3.40 –20/+70 ● ●</td>
<td>RR 14P-60 grey FDA</td>
<td>855641 6.0 60 14 1.5 – 3.0 6.80 –20/+80 ● ●</td>
</tr>
<tr>
<td>RR 20E-40 grey FDA</td>
<td>822149 4.0 40 23 0.3 – 2.0 4.30 –20/+70 ● ● ●</td>
<td>RR 10P-50 grey FDA</td>
<td>822152 5.0 50 23 0.5 – 2.0 5.55 –20/+70 ● ● ●</td>
</tr>
<tr>
<td>RR 20E-50 grey FDA</td>
<td>822153 5.0 50 23 0.5 – 2.0 6.65 –20/+70 ● ●</td>
<td>RR 20E-60 grey FDA</td>
<td>822155 6.0 60 23 0.5 – 2.0 6.65 –20/+70 ● ●</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type code</th>
<th>High Grip</th>
<th>Elastic line (with urethane tension member)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TR 10E black/gray</td>
<td>822120 1.45 20 10 0.3 – 2.0 1.40 –20/+70 ● ● ●</td>
<td>UR 20U GSTR/FSTR black/blue</td>
</tr>
<tr>
<td>RR 14P-50 grey FDA</td>
<td>855636 1.45 14 0.8 3.0 – 8.0 1.45 –20/+60 ● ● ●</td>
<td>UR 40U-HC+ GSTR/NSTR black/grey</td>
</tr>
<tr>
<td>RR 14P-60 grey FDA</td>
<td>855647 1.20 10 0.25 3.0 – 8.0 1.30 –20/+60 ● ● ●</td>
<td>UR 40U-12 FSTR/FSTR blue FDA</td>
</tr>
</tbody>
</table>

Please note: the values stated are nominal and can fluctuate in a belt whose width is a result of production processes. Our products are constantly adapted to market requirements. Consequently, changes in technical parameters can occasionally occur. Therefore, please see the current product data sheets for specific information on designs and calculations.
Siegling – total belting solutions

Committed staff, quality oriented organization and production processes ensure the constantly high standards of our products and services.

Forbo Movement Systems complies with total quality management principles. Our quality management system has ISO 9001 certification at all production and fabrication sites. What’s more, many sites have ISO 14001 environmental management certification.

Forbo Siegling service – anytime, anywhere
The Forbo Siegling Group employs around 2,400 people. Our products are manufactured in ten production facilities across the world. You can find companies and agencies with warehouses and workshops in over 80 countries. Forbo Siegling service points are located in more than 300 places worldwide.

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