

# TIRE INDUSTRY







# FORBO SIEGLING – **THE INNOVATIVE BELTING RANGE** FOR THE TIRE INDUSTRY

When top quality's a must, cost's a major factor and lost output's gauged in minutes, Forbo Siegling's products and services are the ideal choice.

**Sophisticated, reliable and good value belting products** will help you tap into your production machinery's potential and minimize scheduled and unscheduled downtimes. A range of extra products, such as splicing equipment, makes handling easier and increases the application's efficiency. More than 300 service points worldwide ensure swift availability of spare parts and services around the clock.

From support, to fitting, to after-sales service, Forbo Siegling provides an **extensive range of services**. Our expert and experienced engineers are always at hand, from the moment you first talk to them right up to when the products are used.

Our experience tells us what services our customers need to increase their machinery's efficiency and ensure reliable production processes. With a customized service package, we can help you be one step ahead of the competition.

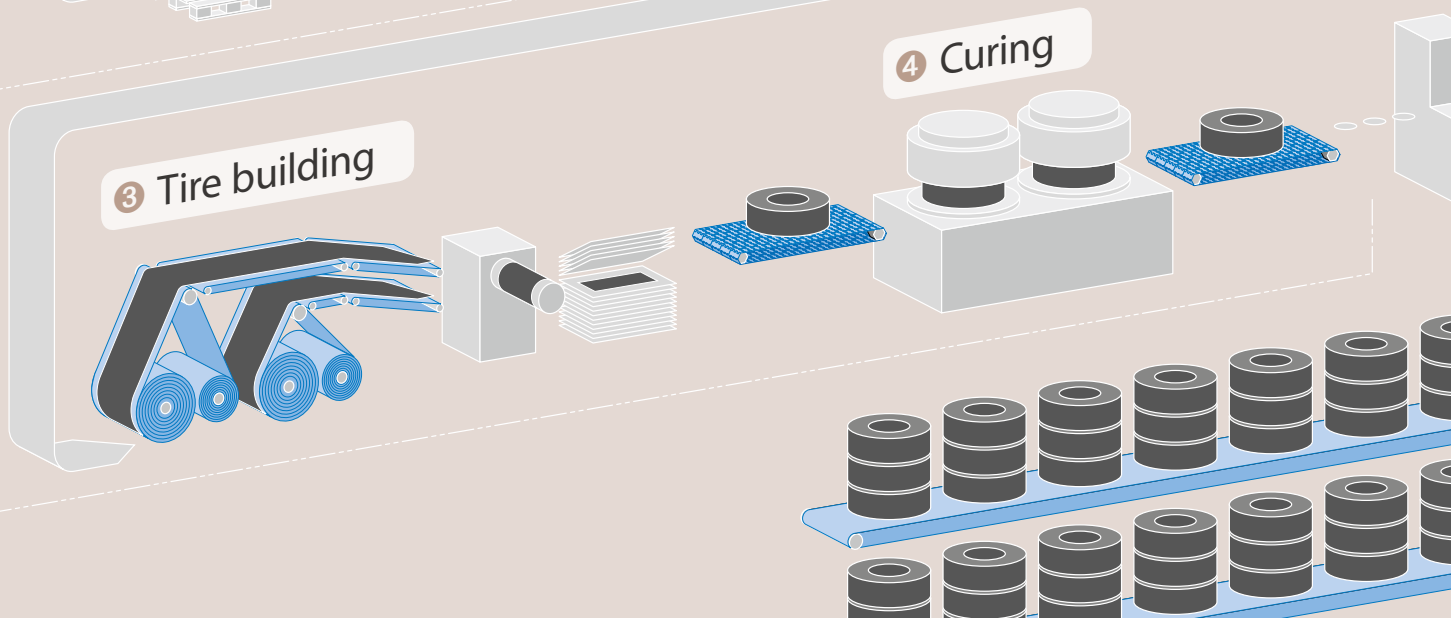
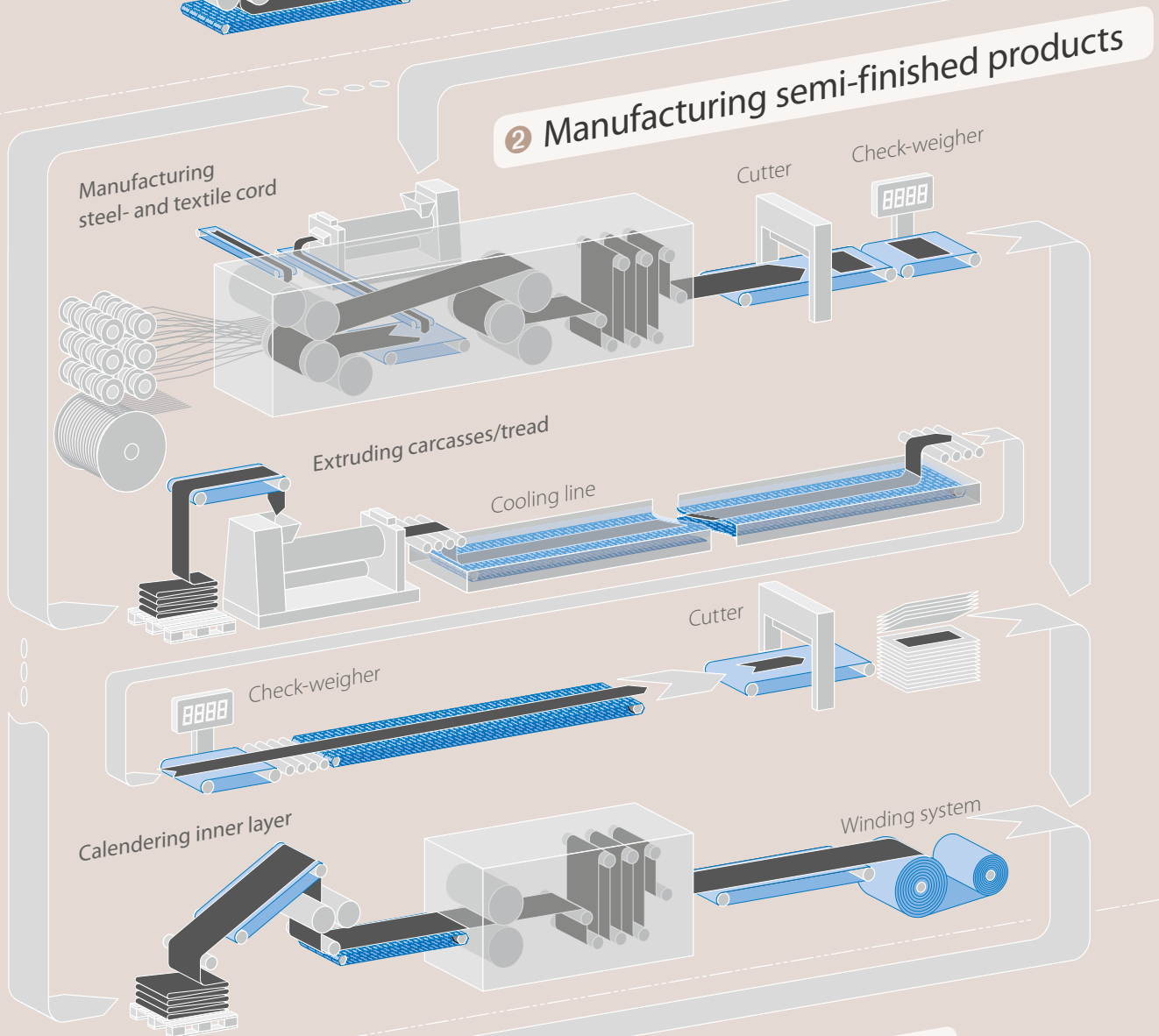
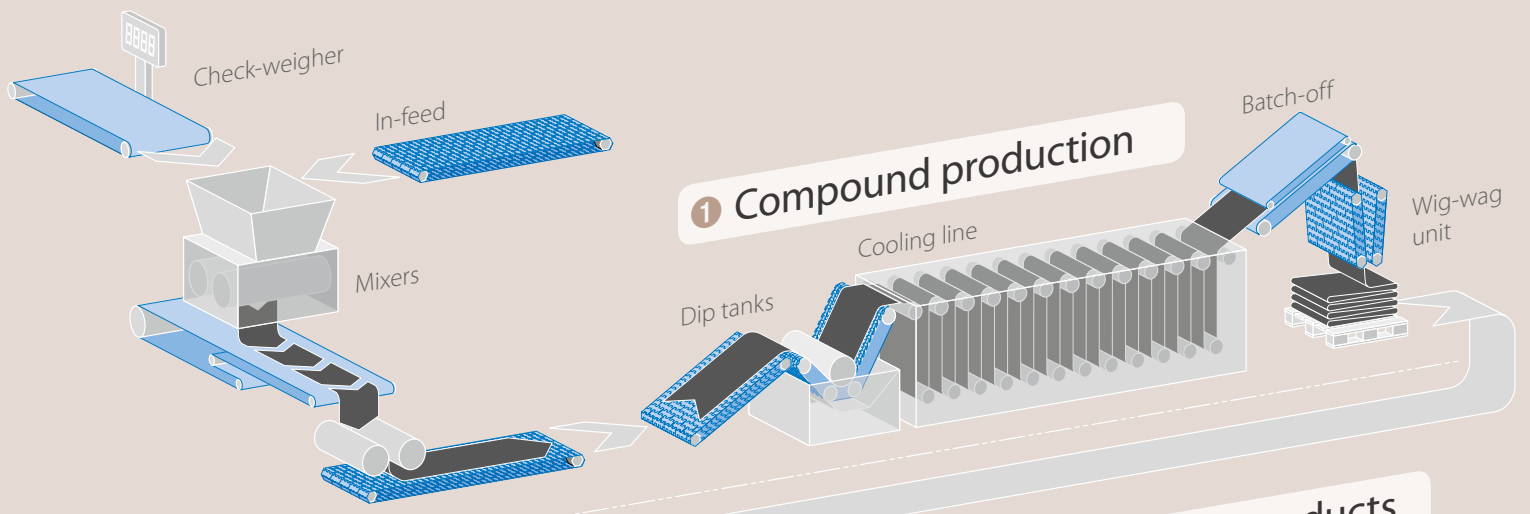
Just contact us.

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Product range

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# THE COMPLETE BELTING RANGE FOR TIRE MANUFACTURE

Before the tires hit the road, Forbo Siegling's belts have helped manufacture them efficiently, faultlessly and reliably at many stages of production.

From mixing the feedstock, to storing the ready tires, our belts guarantee problem-free material flow and economical production procedures – however tough the conditions. Depending on each process step's special requirements, the belts stand apart for their durability, resistance to high temperatures or chemicals and excellent release properties.

Regardless of the machinery used and procedures involved, Forbo Siegling's customers will always be on the safe side. With the variety that three product groups offer and our specialists' expertise, we can meet any challenge – and that's a promise.

- ❶ **Compound production**  
(mixing, batch-off)
- ❷ **Manufacturing semi-finished products**  
(manufacturing steel- and textile cord, extruding, calendering)
- ❸ **Tire building**
- ❹ **Curing**
- ❺ **Quality control/storage**

## VERSATILE & RELIABLE

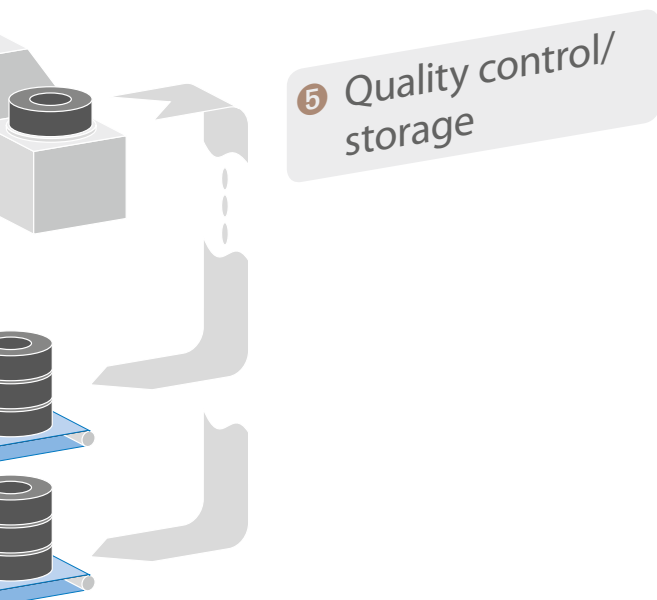
**siegling transilon**  
conveyor and processing belts

## ROBUST & ECONOMICAL

**siegling transtex**  
conveyor belts

## MODULAR & VARIABLE

**siegling prolink**  
modular belts



# siegling transilon

## conveyor and processing belts

### VERSATILE & RELIABLE

Siegling Transilon are fabric- or nonwoven-based conveyor and processing belts, ranging from the all-rounder to the high-tech specialist. With different thicknesses, patterns and characteristics, the versatile range can handle the most diverse conveying and processing jobs in tire manufacture.

#### The properties

#### The advantages

low elongation	▶	short take-up ranges
flexible lengthways	▶	small end diameters
dimensionally stable	▶	reliable and maintenance free
low-noise operation	▶	people-friendly working conditions
durable	▶	economical to run
lightweight, low thickness	▶	easy to handle/operate

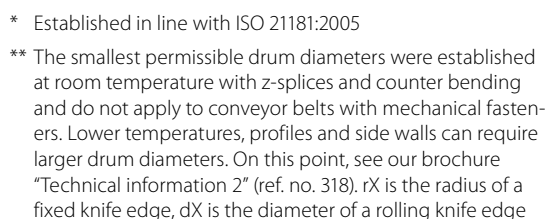
### Product range for tire manufacture

		Article number	Total thickness approx. [mm]	Weight approx. [kg/m <sup>2</sup> ]	Pull at 1 % elongation (k <sub>1%</sub> relaxed) [N/mm width]*	d <sub>min</sub> approx. [mm]**	Permitted operating temperature [°C]	
U-types	E 3/2 U0/U0 transparent FDA	900009	1.2	1.1	4.5	40/r 3	-30/+100	
	E 4/2 U0/U0 transparent FDA	900206	1.1	1.1	3.75	24/r 3	-30/+100	
	E 8/2 U0/U10S LG-SE black	906650	2.2	2.4	8.5	30	-30/+100	
	E 12/2 U0/U0 transparent FDA	900040	1.4	1.4	10.5	60	-30/+100	
	E 12/2 U0/UH transparent	900042	1.45	1.5	8.5	40	-30/+100	
	E 12/2 U0/V/U2H MT green	900173	2.2	2.55	10.0	80	-10/+70	
V-types	E 12/2 U1H/U1H GL/GL transparent	906195	1.5	1.6	9.5	90	-30/+100	
	E 8/2 U0/V5 NP white FDA	900029	2.1	2.15	6.0	40	-10/+70	
	E 8/2 U0/V5H MT black	900026	2.2	2.5	7.5	40	-10/+70	
	E 8/2 U0/V7 SG black	906286	2.3	2.45	6.0	40	-10/+70	
	E 8/2 U0/V15 LG black	900275	3.1	3.4	7.5	40	-10/+70	
	E 12/2 U0/V20 green	900262	3.35	4.1	10.5	60	-10/+70	
S-	E 12/2 V5/V10 STR/GL green	900053	3.25	3.9	11.5	60	-10/+70	
	E 18/3 U0/V20 green	900088	4.8	5.7	16.0	125	-70/+70	
	E 8/H S0/S5 MT-HACCP white FDA	906478	1.4	1.5	6.0	40/r 5	-40/+180	
E	E 18/3 E0/E3 MT-TT transparent	900350	2.6	2.8	14.0	60	-30/+100	
NOVO-	NOVO 40 HC black	900221	4.0	2.2	7.5	90	-10/+120	
	NOVO 60 HC black	900286	5.5	3.0	8.0	125	-10/+120	



## Key

- |             |                        |           |                             |
|-------------|------------------------|-----------|-----------------------------|
| <b>E</b>    | = Polyester            | <b>GL</b> | = Smooth                    |
| <b>NOVO</b> | = Polyester felt       | <b>MT</b> | = Matte                     |
| <b>H</b>    | = HighTech-fabric      | <b>HC</b> | = Highly-conductive         |
| <b>M</b>    | = Solid-woven material | <b>NA</b> | = Non-antistatic            |
| <b>U</b>    | = Polyurethane         | <b>SE</b> | = Flame-retardant,<br>EN340 |
| <b>S</b>    | = Silicone             |           |                             |
| <b>V</b>    | = Polyvinyl chloride   |           |                             |



### Type code Siegling Transilon

E	4 / 2	U0 / U2	MT-HACCP	white	FDA
NOVO	60			HC - SE	black
					Color
					Belt property
					Pattern
					Top face coating [mm/10]
					Underside coating [mm/10]
					Number of plies, special fabric (H or M) or total thickness (NOVO)
					Type class
					Tension member fabric

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# siegling transtex

## conveyor belts

### ROBUST & ECONOMICAL

Siegling Transtex are robust, fabric-based conveyor belts for extreme production environments. They excel when rubber manufacturing conditions are especially hot and tough. With rubber and PVC coatings and different patterns, they handle heavy-duty jobs at all stages of the process.

#### The properties

#### The advantages

extreme flexibility compared with steel and rubber belts



low power consumption, relatively small reversing drum diameters, compact conveyor designs

extremely robust, abrasion- and puncture resistant



long service lives, even when subjected to heavy usage

various different fabric designs



laterally stiff and troughable designs with strong edges

good damping features



reduced bearing load, little vibration during operation

#### Product range for tire manufacture

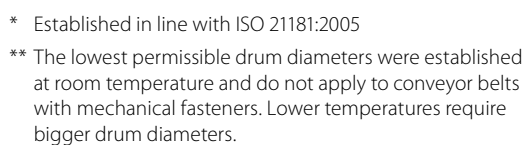
		Article number	Total thickness approx. [mm]	Weight approx. [kg/m <sup>2</sup> ]	Pull at 1 % elongation (k <sub>1%</sub> relaxed) [N/mm width]*	d <sub>min</sub> approx. [mm]**	Permitted operating temperature [°C]	
PVK	PVK125 FS XFS-NA black FR	908103	3.7	3.4	9	50	-18/+82	
	PVK150 FS XFS-NA black FR	908125	4.6	4.3	9	90	-18/+82	
	PVK150MF B X B-NA black FR	908139	3.7	3.2	13	80	-18/+160	
PHR-types	PHR2-90MF Grade II RT XBB black	908214	7.0	6.5	5	64	-29/+107	
	PHR2-90MF LIX BB-NA black FR	908201	3.6	4.3	4	90	-29/+107	
	PHR2-160 RT XBB-NA black FR	908206	6.5	5.2	10	100	-29/+107	
	PHR3-135MF BB X BB-NA black FR	908208	3.9	4.6	7	90	-29/+107	





## Key

- |                 |   |                                     |
|-----------------|---|-------------------------------------|
| <b>PVK</b>      | = | Special fabric impregnated with PVC |
| <b>PHR</b>      | = | Package-handling rubber             |
| <b>MF</b>       | = | Monofilament fabric                 |
| <b>B</b>        | = | Brush fabric                        |
| <b>BB</b>       | = | Bareback fabric                     |
| <b>F/FS</b>     | = | Friction fabric                     |
| <b>LI</b>       | = | Light impression                    |
| <b>RT</b>       | = | Rough top                           |
| <b>FR</b>       | = | Flame retardant                     |
| <b>Grade II</b> | = | Abrasion resistant                  |
| <b>NA</b>       | = | Non antistatic                      |

Type code Siegling Transtex

The diagram illustrates the construction of a multi-layered material. It consists of a series of vertical lines representing layers. From left to right, the layers are labeled as follows:

- Series, if required number of layers**: This label is positioned at the bottom left, spanning the width of the first few layers.
- Specified tension [lb/inch width], special tension member feature**: This label is positioned below the first layer.
- Belt feature**: This label is positioned below the second layer.
- Top-face coating**: This label is positioned below the third layer.
- Underside coating**: This label is positioned below the fourth layer.
- Antistatic finish**: This label is positioned below the fifth layer.
- Color**: This label is positioned below the sixth layer.

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# siegling prolink

## modular belts

### MODULAR & VARIABLE

Siegling Prolink are very robust and durable plastic modular belts. They manage conveying and processing jobs, not possible with conventional belting material. Adapting the length and width is possible and single modules are quick to exchange. As a result, down times are minimized. By inserting modules with a special function – e.g. grip modules – the characteristic of the belt can even be changed later.

#### The properties

#### The advantages

tough, resistant even at high temperatures and under load	▶	operates even under extreme conditions
easy to fit and repair	▶	saves time and money
homogenous material	▶	good product release
open design/pattern	▶	small contact area
good chemical resistance	▶	long service lives

#### Product range for tire manufacture

	Module pattern/ module surface	Material*	Weight approx. [kg/m <sup>2</sup> ] POM, plastic pins	Permissible pull (straight sections) [N/mm (lb/ft)]	Colors	Pitch [mm]	
S4.1-0 FLT	closed, smooth	PE, PP, POM, POM-MD	7.1	3 – 10 (206 – 685)	BL, WT	14	
S4.1-0 NPY	closed, NP-pattern	PE, PP, POM	7.1	3 – 10 (206 – 685)	BL	14	
S5-45 GRT	lattice shaped, extremely permeable	PE, PP, POM	13 <sup>1)</sup>	10 – 25 (685 – 1713)	DB, WT	25	
S8-0 FLT	closed, smooth	PP, POM, POM-CR, PXX-HC, PA-HT	11	20 – 40 (1370 – 2740)	AT, BL, LG, WT	25.4	
S8-0 SRS	closed, slip-resistant surface	POM-HC, POM-CR, PXX-HC	11	20 – 40 (1370 – 2740)	AT, BK	25.4	
S8-25 RAT	permeable, rounded surface	PP, POM, PA-HT	9.7	20 – 40 (1370 – 2740)	BL, LG	25.4	
S8-0 RTP A90	closed, with roller top	POM	14.3	20 (1370)	BL	25.4	
S10-36 FLT	permeable, smooth	PE, PP, POM, POM-MD	6.2	4 – 13 (274 – 891)	WT, LB	25.4	

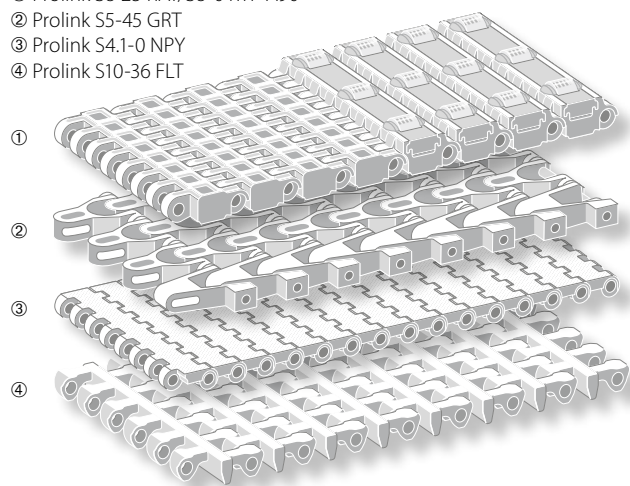
\* All materials used for Siegling Prolink are silicone-free.

<sup>1)</sup> Stainless steel pins



## Module patterns/surfaces

- ① Prolink S8-25 RAT/S8-0 RTP A90
- ② Prolink S5-45 GRT
- ③ Prolink S4.1-0 NPY
- ④ Prolink S10-36 FLT



## Key

<b>PE</b>	=	Polyethylene
<b>POM</b>	=	Polyoxymethylene (Polyacetal)
<b>PP</b>	=	Polypropylene
<b>POM-CR</b>	=	POM cut resistant
<b>POM-MD</b>	=	POM metal detectable
<b>PXX-HC</b>	=	Self-extinguishing/highly conductive
<b>FLT</b>	=	Flat surface
<b>GRT</b>	=	Lattice pattern
<b>NPY</b>	=	Inverted pyramid pattern
<b>RAT</b>	=	Rounded surface contact points
<b>RTP</b>	=	Roller top
<b>AT</b>	=	Anthracite
<b>BL</b>	=	Blue
<b>BK</b>	=	Black
<b>DB</b>	=	Dark blue
<b>LG</b>	=	Light gray
<b>WT</b>	=	White

	Compound production		Manufacturing semi-finished products				Tire building		Quality control/storage	
	< Mixing	< Batch-off	< Tire cord cutting	< Rubber extrusion & cooling	< Calendaring		< Tire building	< Curing		< Quality control/storage
							•			
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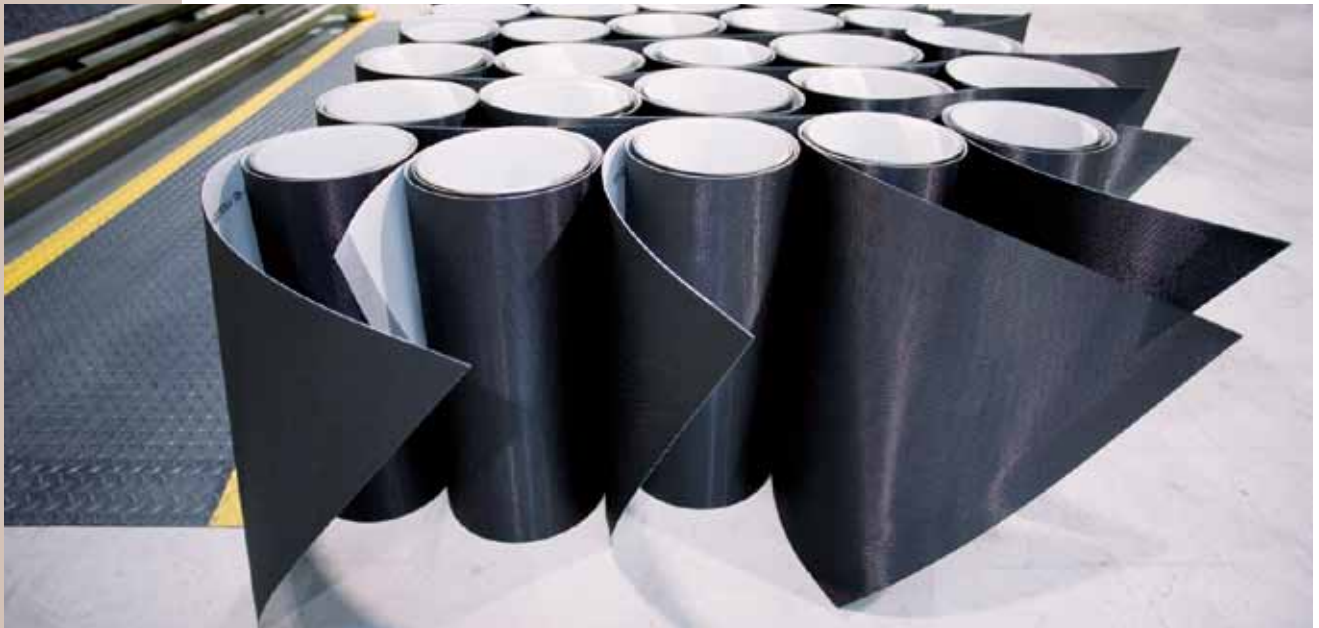
### Type code Siegling Prolink (simplified)

<b>S5</b>	<b>-</b>	<b>45</b>	<b>GRT</b>	
				Surface pattern
				Open area
				Series

## Siegling – total belting solutions

Committed staff, quality oriented organization and production processes ensure the constantly high standards of our products and services. The Forbo Siegling Quality Management System is certified in accordance with ISO 9001.

In addition to product quality, environmental protection is an important corporate goal. Early on we also introduced an environmental management system, certified in accordance with ISO 14001.



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### Forbo Siegling service – anytime, anywhere

The Forbo Siegling Group employs more than 2,500 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.

#### Forbo Siegling GmbH

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MOVEMENT SYSTEMS