

siegling
belting

FOOD



Siegling – total belting solutions

forbo

MOVEMENT SYSTEMS



CLEAN, EFFICIENT AND ALWAYS **ONE STEP AHEAD**

The food industry's a fast-paced environment. As material flow and intralogistics experts we monitor the market carefully and liaise closely with OEMs and end customers.

Today's challenges and requirements shape the direction our research and development takes. The results are practical product innovations that help our customers to gain a competitive edge.

Which is why Forbo Siegling guarantees consistent support of your HACCP concept and production processes. We also provide comprehensive services and advice the world over. And you can rest assured that our products and services will meet the demands of tomorrow's world too.

Contents

- 4 Superior reliability in all processes
- 8 Siegling Transilon conveyor and processing belts
- 19 Siegling Proposition timing belts
- 20 Siegling Prolink modular belts

HYGIENE FROM START TO FINISH

SUPERIOR RELIABILITY

IN ALL PROCESSES

With our in-depth experience of processes in all areas of the food industry, Forbo Siegling provides conveyor and processing belts, appropriate accessories and the skills to match.

We focus on flawless hygiene and top productivity – so that you can produce food reliably, safely and competitively.



Confectionery production

Forbo Siegling belts are ideal for all sorts of confectionery production – from chocolate to chewing gum. Their special characteristics support all sorts of process such as mixing, cooling, weighing, metal detecting and packaging.

Some of the products we offer include:

- belts with excellent release characteristics
- belts suitable for knife edges and ones with patterns
- belts with superior thermal conductivity and large open areas for cooling lines
- belts with exceptional resistance to oil and grease



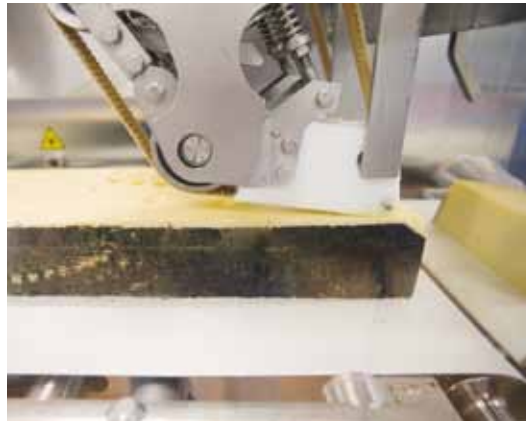


Processing meat, poultry and seafood

From slaughtering to packaging, Forbo Siegling belts are excellent choices when it comes to productivity and food safety.

Some of the products we offer include:

- special HACCP belts with exceptional release characteristics and top resistance to hydrolysis
- incision-proof belts that are easy to clean
- blue belts for fast checking processes that don't strain eyes
- belts with fray-free edges, belt edge sealing and homogeneous belt bodies
- belts with different patterns for inclined conveying without extra profiles
- belts for deep freezing sections (cooling towers)



Dairy industry

In all processes in the dairy industry, from coagulating the milk to portioning, filling and packaging the finished products, Forbo Siegling's belts tick all the boxes when it's a question of hygiene and reliable production.

Some of the products we offer include:

- special HACCP belts with very good release characteristics and top resistance to hydrolysis
- incision-proof belts that are easy to clean
- special troughable belts for coagulation
- belts with fray-free edges, belt edge sealing and homogeneous belt bodies



Dough processing

Conveyor and processing belts handle virtually all processing phases in today's baked goods industry. In the production of baked goods, Forbo Siegling belts reliably ensure efficient processes and a high standard of food safety.

Some of the products we offer include:

- special HACCP belts with very good release characteristics and top resistance to hydrolysis
- blue belts for fast checking processes that don't strain eyes
- belts with fray-free edges, belt-edge sealing
- elastic belts with homogeneous belt bodies (spreading belts)
- belts for deep freezing sections (cooling towers)
- belts suitable for knife edges and ones with patterns



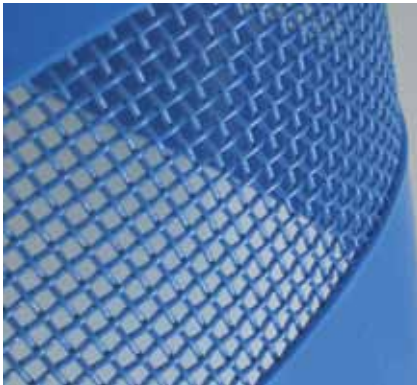


Agricultural industry

Production of fruit and vegetables involves a diverse range of processes. To achieve high-quality results, it's vital that produce is conveyed quickly and gently. Forbo Siegling belts treat products carefully, are fast and therefore cut production times.

Some of the products we offer include:

- belts with good resistance to fruit acids that are therefore long-lasting
- belts with profiles and side walls
- belts with large open areas for washing and drying
- very hard-wearing belts for use in abrasive environments



Packaging

Forbo Siegling ensures effective and dependable packaging processes thanks to a wide range of belts. Therefore, you can exploit your quality and productivity potential to the full. We can offer:

- check-weigher belts of equal thicknesses and exceptionally precise splices that make endless belts superfluous
- elastic belts for use in packaging machinery (buffer conveyors) with homogeneous structures and easy to clean surfaces
- light-permeable belts for vision-supported robot systems (pick & place)
- temperature-resistant belts for use in shrinking tunnels
- FDA- and EU-compliant folder-gluer for making cardboard boxes
- round belts



For more information about round belts, folder-gluer belts and machine tapes visit www.forbo-siegling.com or take a look at these brochures:

No.	Title
229	Siegling Transilon round belts – product range
284	Siegling Extremultus folder and carrier belts
275	Siegling Extremultus machine tapes
251	Siegling Extremultus Grip Star™ – flat belts that don't let go





siegling transilon
conveyor and processing belts

SIEGLING TRANSILON

... are multi-layer, fabric-based or homogeneous belts for a wide range of conveying and processing jobs. They are true all-rounders or special belts for special applications throughout all segments of the food industry.



In terms of feedstock and migration figures, all HACCP types comply with the most important provisions and regulations (see symbols on the left). In the food segment, the majority of the Siegling Transilon PU- and PVC-types are certified as complying with Halal regulations by IFRC Asia (a member of the World Halal Council).

The properties

The advantages

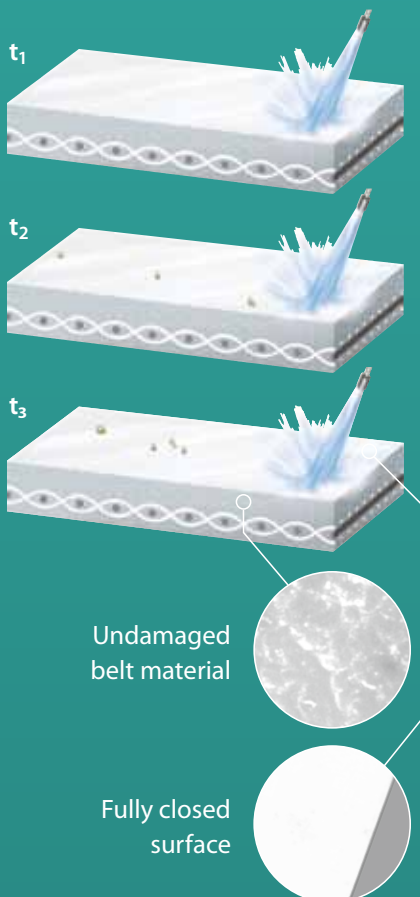
compliant with EU- and/or FDA, MHLW- or Halal regulations (depending on type)	▶ types are suitable for direct contact with food
material that's easy/ flexible to process	▶ customised design (e.g. surfaces, profiles, side walls ...)
tension members specific to application	▶ rigid or flexible depending on application
dimensionally stable	▶ can be used even when humidity and temperature fluctuate
lightweight and not very thick overall	▶ low energy consumption, very small drum diameters possible
low elongation	▶ short take-up ranges possible
closed surfaces	▶ superior cleaning and product release capabilities

HOW **SIEGLING TRANSILON** BENEFITS YOUR HACCP CONCEPT

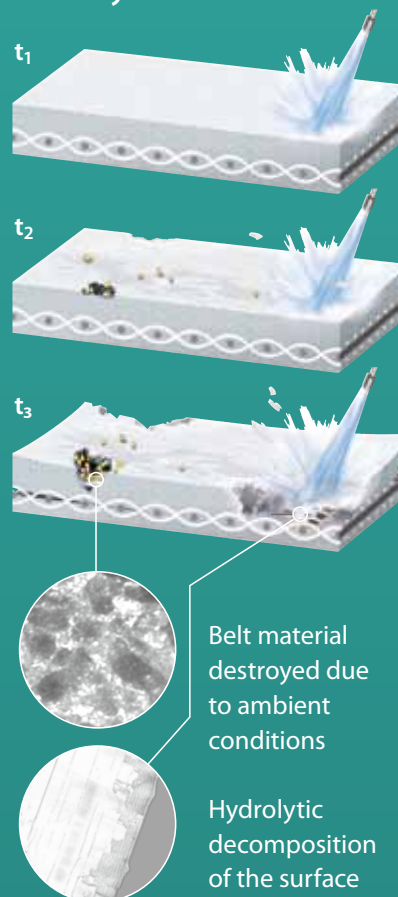


We'll support your HACCP concept reliably in all hygiene-critical areas and in line with legal requirements. Our food range, particularly the special HACCP types, comes with a whole host of product characteristics and designs. These elements eradicate any potential safety risks in the manufacturing process.

Siegling Transilon HACCP belt



Standard conveyor belt



Siegling Transilon HACCP belt in comparison with a standard conveyor belt.

Influence of bacterial growth and hot water cleaning cycles on the condition of the belt or the way it functions depending on time [t].

Outstanding release properties

Due to their excellent release properties, all HACCP types are a huge advantage when processing adhesive foodstuffs. Forbo Siegling also has belts with special finishes for conveying products with a tendency to stick. They feature superb release properties, particularly in the case of sticky products like dough, caramel, or other confectionery and are easy to clean.



Belt edge sealing



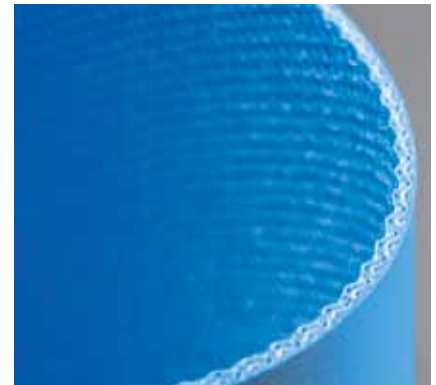
When belts are made of synthetic materials and have fabric tension members, sealing closes the edges. This process prevents penetration of oil, grease and water, and therefore of bacteria in the belt edge. And the belt's service life is increased too. Belts with Smartseal belt edge sealing are suitable for knife edges and can be made endless with all standard splice types.

Fullseal

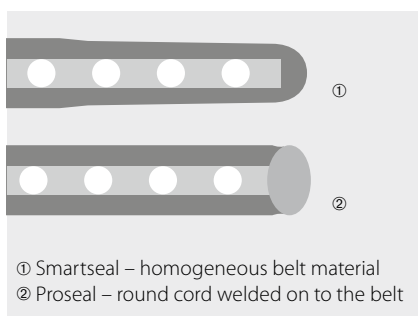


The edges of Fullseal belts can't fray. Fullseal combines the hygiene benefits of homogeneous urethane belts with the mechanical characteristics of belts with fabric tension members. Lengthways cuts between the warp fibres only separate the PU material and ensure the belt edge stays intact. Therefore fluids can't get into the belt. Fullseal is ideal in hygiene-critical applications (such as dairy production, dough processing, meat and poultry production).

Frayfree



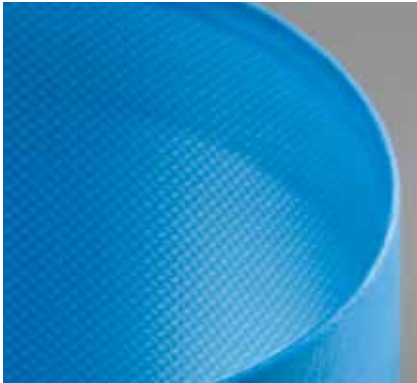
Frayfree is a belt design that keeps fraying belt edges to a minimum. A special type of fabric, a special weave and enhanced fibre length improve fibre grip in the fabric composite. Furthermore, state-of-the-art manufacturing technology ensures each of the fibres bonds with the coating material. Frayfree belts minimise contamination with lint of the products conveyed.



SIEGLING BELTING

APPLICATION-DRIVEN DETAILS

Prosan™

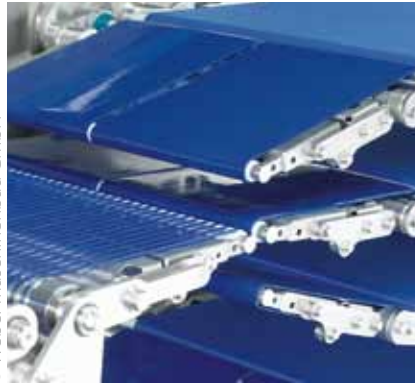


© Weber Maschinenbau GmbH

Prosan™ belts are coated on both sides and comply with hygiene requirements to the full. The pre-shrunk, very flexible tension members mean that small return radii are possible despite the coating on both sides of the belt. A patent is pending on the new underside pattern (BT = Broken Twill). It has a particularly low friction coefficient with easy-clean characteristics. Cleaning the belt is fast and straightforward.

Similarly to Frayfree belts, some unsealed Prosan™ belts have virtually fray-free edges. Optional Smartseal edge sealing also creates a belt that's fully protected.

Elastic belts



With their homogeneous structure and easy-clean surfaces, Siegling's elastic Extremultus belts score top marks on hygiene when processing unpackaged foodstuffs. They require no take-up system, track superbly and are also available as High Grip versions.

The combination of these characteristics make them top choices as dough belts, in spreader machinery, checkweighers, cutting machinery, buffer conveyors, packaging and labelling machines.

Profiles and sidewalls



Conveyor belts with profiles are used for inclined and steep conveying of bulk goods and small products. Profiles are available in various shapes and dimensions.

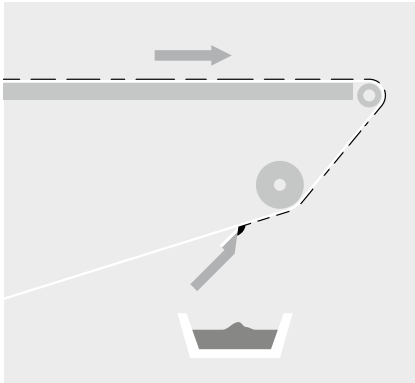
Sidewalls (often combined with lateral profiles) are used to contain bulk goods at the sides. Forbo Siegling's sidewall range is exceptionally food-safe and offers diverse options for unusual conveyor designs.

More information on Siegling products relevant to the food industry can be found in the following brochures:

No.	Title
120	The new sidewall range
228	Tobacco
317	Siegling Transilon Technical information 1, storage, finishing, fitting
318	Siegling Transilon Technical information 2, special features and properties



Belt scrapers



To produce hard-wearing, rigid scrapers, materials with different levels of hardness are processed to make one single part. Therefore, the scraper is very inherently stiff and can often be used without any additional support.

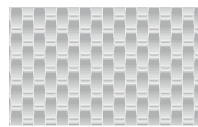
The highly elastic scraper lip lies very evenly over the entire width of the belt.

Consequently, they have significant advantages compared with conventional metal scrapers:

- the belt and the scraper last much longer
- scraping is more thorough
- they are up to four times more robust than UHMW scrapers
- they are easier to clean

Surface patterns

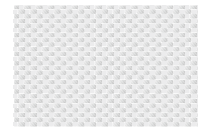
Special surface patterns can enhance the grip and release characteristics of many products and emboss the bottom (e.g. in the case of chocolate). We can custom-produce any type of embossing. Just come and talk to us.



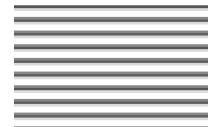
DIA Diagonal



FG Herringbone



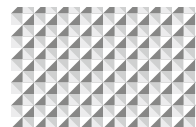
Fine Fine fabric pattern



LG Longitudinal groove



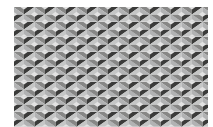
MT Matt surface



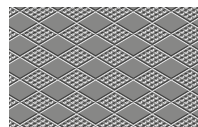
NP Inverted pyramid



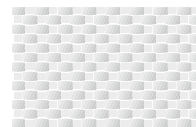
QS Quartz sand



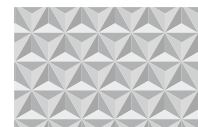
RF Fine rhomboid



RFF
Flat fine rhomboid



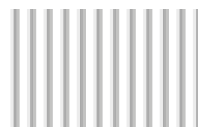
Rough
Rough fabric pattern



SP Star pyramid



TRI Triangle, crosswise

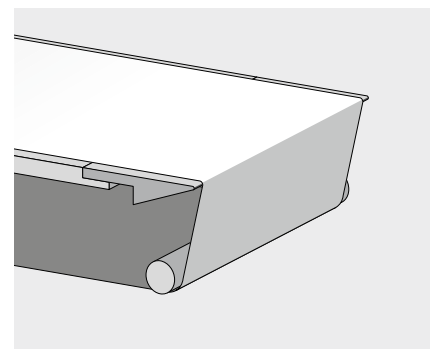


WG Wide groove

Suitable for knife edges

Belts that can handle knife edges are required for some applications, i.e. cooling lines, so that even the very smallest of products is transferred properly to the next belt.

Siegling Transilon belts are ideal for very small knife-edge radii – special types can also be used in curves and merges. The belts lie very flat, so that even lightweight products are positioned correctly on long conveyors.



SIEGLING TRANSILON

FOOD PRODUCT RANGE

Technical data, properties and recommendations, possible applications	Article number	Total thickness approx. [mm]	Weight approx. [kg/m ²]	Effective pull at 1% elongation (k _{1%} relaxed) [N/mm width]*	d _{min} approx. [mm]**	Permissible operating temperature [°C]	Hardness of the top face coating [Shore A]	Standard width supplied / max. width supplied [mm]	Food compliance with EC / FDA / Halal / MHLW***	Belt edge sealing****	
A – Polyolefin											
E 4/2 A0/A2 MT-HACCP blue FDA	906713	1.3	1.15	5	60 ⁸⁾ /r5	-10/+60	92	3100 ³⁾	E/F/-/-	P/S	
E 4/2 A0/A2 MT-HACCP white FDA	906660	1.3	1.15	5	60 ⁸⁾ /r5	-10/+60	92	3400	E/F/-/-	P/S	
E 8/2 0/A2 MT-TT white FDA	906775	1.6	1.35	4.25	60	-10/+120	50D	3000	E/F/-/M	S	
E 8/2 X0/A2 MT-NA-HACCP white FDA	906776	1.7	1.5	9.5	60/r5	-10/+60	90	3350	E/F/-/-	S	
E 10/2 E0/A4 TT transparent	906652	2.25	2	7.5	60	-10/+60	90	4350 ³⁾	E/F/-/-	5)	
C/0 – Cotton/fabric, uncoated											
E 2/2 0/V/0 white FDA	906570	1.5	1.7	2.5	40 ⁸⁾ /r3	-10/+70		1500 ³⁾	E/F/H/-	S	
E 2/2 U0/U/0 transparent FDA	906735	1.1	1.2	3.5	40 ⁸⁾ /r3	-30/+100		3000	E/F/H/-	S	
EP 3/2 U0/0 NA transparent FDA	906599	0.9	0.8	2.5	60	-30/+100		1400	E/F/H/-	S	
E 3/2 0/U/C FINE white	999638	1.4	1.4	2.5	40 ⁸⁾ /r3	-10/+100		1350	E/-/-/M	P/S	
E 3/2 U0/U/C ROUGH blue	906729	2	1.7	2.75	40 ⁸⁾ /r3	-30/+100		2900	E/-/-/-	5)	
E 3/2 U0/U/C ROUGH transparent	906667	2	1.7	3	40 ⁸⁾ /r3	-30/+100		2900	E/-/-/-	S	
E 5/2 0/0 transparent	900104	1.45	1.5	1.25	24	-10/+70		3100 ³⁾	E/-/H/-	P/S	
E – Polyester											
E 12/2 E0/E3 MT-TT transparent	900348	1.7	1.8	10.5	50/d16	-30/+100	92	4500	E/F/-/-	S	
F – NOVO (Polyester felt)											
E 6/1 U0/F20 white FDA	900130	2.5	1.4	4.5	50 ⁸⁾ /r4	-30/+100		1500 ³⁾	E/F/-/-	5)	
NOVO 25 NA white	996160	2.6	1.35	7	40	-10/+120		2000 ³⁾	E/-/-/-	–	
R – HighGrip											
E 4/1 U0/R2 HACCP-FF white FDA	906665	1.15	1.15	3.25	40 ⁸⁾ /r3	-30/+100	55	3100	E/F/H/-	S	
E 4/2 U0/R2 HACCP-FF white FDA	906705	1.35	1.55	5.5	60 ⁸⁾ /r3	-30/+100	76	3100 ³⁾	E/F/H/-	S	
E 8/2 U0/R10 LG blue FDA	906805	2.4	2.5	6.5	30	-30/+100	65	1400 ³⁾	E/F/-/M	S	
S – Silicone											
E 3/1 U0/S3 white FDA	900184	1.1	1.05	2.75	40 ⁸⁾ /r3	-30/+100	30	3100	E/F/-/-	–	
E 3/1 U0/S3 HACCP-FF blue FDA	906760	1	1	2.25	16/r3	-30/+100	30	3100	E/F/-/-	–	
E 3/1 U0/S3 HACCP-FF white FDA	906828	1.1	1.1	1.75	16/r3	-30/+100	30	3050	E/F/-/-	–	
E 4/2 S0/S0 transparent FDA	900135	1.3	1.1	5.25	40	-40/+180		3100	E/F/-/-	–	
E 4/2 S0/S3 FSTR white FDA	900136	1.5	1.6	4.5	40	-40/+180	30	3100	E/F/-/-	–	
E 6/2 U0/U/S3 white FDA	906477	1.6	1.8	5	40 ⁸⁾	-30/+100	30	3100	E/F/-/-	S	
E 8/H S0/S5 MT-HACCP white FDA	906478	1.4	1.5	6	40 ⁸⁾ /d10	-40/+180	60	2900	E/F/-/-	–	
U – Polyurethane											
E 2/1 U0/U2 HACCP white FDA	900176	0.65	0.65	2.5	40 ⁸⁾ /r3	-30/+100	85	3000/4500 ⁴⁾	E/F/H/-	S	
E 3/1 U0/U2 GL-NA amber FDA	900397	0.75	0.8	2.5	14/r3	-30/+100	85	3200	E/F/H/-	S	
E 3/1 U0/U2 HACCP white FDA	900006	1.15	1.2	3.25	14	-30/+100	85	3000/4600 ⁴⁾	E/F/H/M	P/S	
E 3/1 U0/U2 MT-NA-HACCP white FDA	900201	0.8	0.9	2.75	40 ⁸⁾ /r3	-30/+100	85	3100	E/F/H/-	P/S	
E 3/1 U0/U2 MT-NA-HACCP-FF blue FDA	906662	0.9	0.9	3	14/r3	-30/+100		3200	E/F/H/-	S	
E 3/1 X0/U2D MT-HACCP-FF white FDA	906730	1	1	2.75	14/r3	-20/+100	85	3200	E/F/-/-	S	
E 3/1 U0/U2 MT-C-HACCP blue FDA	906602	0.7	0.7	2.75	40 ⁸⁾ /r3	-30/+100	85	3200	E/F/H/-	P/S	
E 3/1 U0/U2 MT-C-HACCP white FDA	900008	0.7	0.7	2.5	40 ⁸⁾ /r3	-30/+100	85	3200	E/F/H/-	P/S	
E 3/1 U0/U2 RF brown FDA	900007	1.2	1.1	3.75	14/r3	-30/+100	85	1500	E/F/H/-	P/S	
E 3/1 U0/U2 RFF-NA amber FDA	900398	0.8	0.8	2.5	14/r3	-30/+100	85	1630	E/F/H/-	S	
E 3/1 U0/U2 RFF-HACCP white FDA	906726	1.15	1.1	3	14/r3	-30/+100	85	1630	E/F/H/M	S	
E 3/1 U2/U2 BT/MT-HACCP-FF blue FDA	904697	1.2	1.4	3	20	-30/100	95	1400	E/F/-/M	S	
E 3/1 U2/U2 BT/MT-HACCP-FF white FDA	904698	1.2	1.4	3	20	-30/100	95	1400	E/F/-/M	S	
E 3/1 U2/U2 BT/SMT-HW-HACCP-PS blue	904474	1.4	1.6	3	20	-30/100	95	1400	-/-/-/M	S	
E 3/1 U2/U2 BT/SMT-HW-HACCP-PS white	904473	1.4	1.6	3	20	-30/100	95	1400	-/-/-/M	S	
E 3/1 U0/U3 SP-NA amber FDA	906733	1	0.9	2.75	40 ⁸⁾ /r3	-30/+100	85	1500	E/F/H/-	5)	
E 3/2 U0/U2 HACCP white FDA	900103	1.4	1.6	5.5	40 ⁸⁾ /r3	-30/+100	85	3100 ³⁾ /4600 ⁴⁾	E/F/H/M	P/S	
E 3/2 U0/U2 HACCP-FF blue FDA	906664	1.5	1.6	5	24/r3	-30/+100	85	3200 ³⁾	E/F/H/-	S	
E 3/2 U0/U4 WG-HACCP blue FDA	906768	2	1.8	4	24	-30/+100	85	1400	E/F/-/M	P/S	
E 4/2 U0/U2 HACCP-FF white FDA	906645	1.35	1.55	5	40 ⁸⁾ /r3	-30/+100	92	3200 ³⁾	E/F/H/-	S	
E 4/2 U0/U2 LF white	906373	1.35	1.5	4	40 ⁸⁾ /r3	-30/+100	85	3100 ³⁾	E/-/-/-	P/S	
E 4/2 U0/U2 MT blue FDA	906540	1.35	1.55	4	40 ⁸⁾ /r3	-30/+100	92	3000 ³⁾ /4600 ⁴⁾	E/F/H/-	P/S	

The diagram illustrates the components of a Transilon designation using the example **E 8 / 2 U0/V5 E10/M V1/V10**. The designation is broken down into six parts, each represented by a vertical line and a corresponding label:

- Type designation for Siegling Transilon**: The entire designation **E 8 / 2 U0/V5 E10/M V1/V10**.
- Top face coating**: **U0** (with unit **[mm/10]**).
- Underside coating**: **V5** (with unit **[mm/10]**).
- Number of plies or special fabric (M or H)**: **E10**.
- Type class**: **V1/V10**.
- Material of fabric**: **E**.

Established in line with ISO 21181:2005

****** The smallest permissible drum diameters were established at room temperature with z-splices and counter bending and do not apply to conveyor belts with mechanical fasteners. Lower temperatures, profiles and side walls can require larger drum diameters. On this point, see our brochure "Technical information 2" (ref. no. 318)

rX is the radius of a fixed knife edge
dX is the diameter of a rolling knife edge

******* E = (EU) 10/2011 and (EC) 1935/2004,
F = Food and Drug Administration,
H = Halal certified,
M = MHLW Notification no. 370

******** P = Proseal, S = Smartséal

1) For special applications only. Not to be used as a conveyor belt

2) Lower values for special applications possible. Please enquire

3) Larger widths with longitudinal seam possible

4) Maximal widths without longitudinal seam on request

5) Please enquire

6) No Z-splice – see data sheet

7) Rolling knife edge

8) Smaller minimum drum diameter with counter-bending on request

● Yes

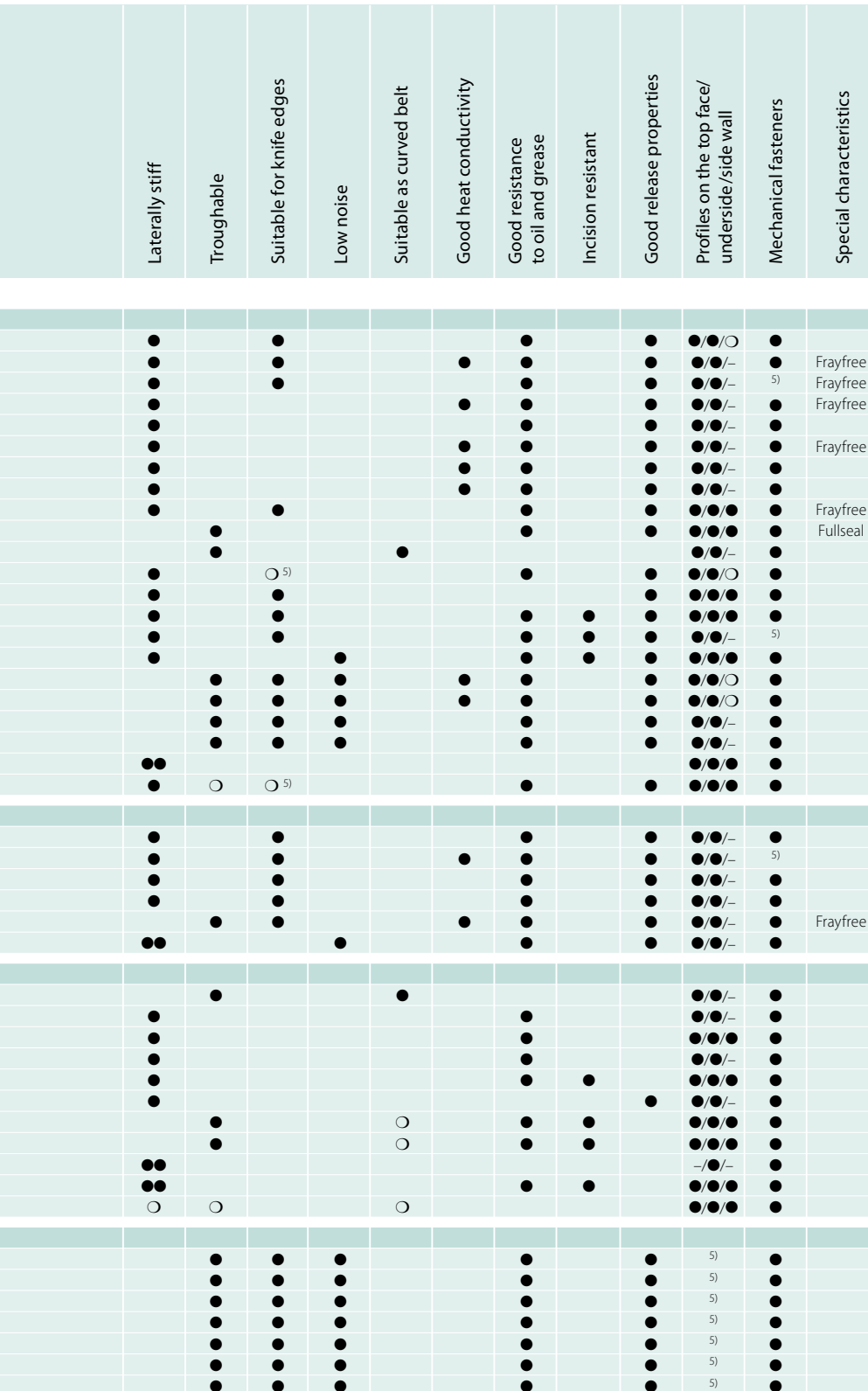
●● Yes, particularly suitable

○ Partly suited, on request

SIEGLING TRANSILON

FOOD PRODUCT RANGE

Technical data, properties and recommendations, possible applications	Article number	Total thickness approx. [mm]	Weight approx. [kg/m ²]	Effective pull at 1% elongation (k _{1%} relaxed) [N/mm width]*	d _{min} approx. [mm]**	Permissible operating temperature [°C]	Hardness of the top face coating [Shore A]	Standard width supplied / max. width supplied [mm]	Food compliance with EC / FDA / Halal / MHLW***	Belt edge sealing****	
U – Polyurethane											
E 4/2 U0/U2 MT-HACCP white FDA	900207	1.35	1.55	4	40/r3	-30/+100	92	3100 ³⁾ /4600 ⁴⁾	E/F/H/M	P/S	
E 4/2 U0/U2 MT-HACCP-FF blue FDA	906663	1.4	1.55	5.75	40 ⁸⁾ /r3	-30/+100	92	3200 ³⁾	E/F/H/-	S	
E 4/2 U0/U2 QS-HACCP-FF blue FDA	906765	1.35	1.5	4.75	40 ⁸⁾ /r3	-30/+100	92	2000	E/F/H/-	S	
E 4/2 U2/U2 BT/MT-HACCP-FF blue FDA	904699	1.3	1.4	4	15/d10	-30/100	95	1400	E/F/-/M	S	
E 3/2 U0/U4 DIA-FF-HACCP blue FDA	906852	2.0	1.75	5.5	24	-30/+100		1450	E/F/H/-	S	
E 4/2 U2/U2 BT/MT-HACCP-FF white FDA	904696	1.3	1.4	4	15/d10	-30/100	95	1400	E/F/-/M	S	
E 4/2 U2/U2 BT/SMT-HW-HACCP-PS blue	904476	1.3	1.6	4	20	-30/100	95	1400	-/-/-/M	S	
E 4/2 U2/U2 BT/SMT-HW-HACCP-PS white	904475	1.3	1.6	4	20	-30/100	95	1400	-/-/-/M	S	
E 4/2 U0/U3 NP-HACCP-FF blue FDA	906835	1.5	1.6	5	30/r3	-30/+100	92	3000 ³⁾	E/F/H/-	S	
E 4/H U8/U8 NP/MT-NA blue FDA	907139	2.5	2.8	2	40	-30/+100	92	1600	E/F/-/-	5)	
E 8/2 U0/U2 C white FDA	999619	1.25	1.3	5.5	12	-30/+100	86	2100 ³⁾	-/F/H/M	5)	
E 8/2 U0/U2 MT-NA white FDA	900277	1.4	1.45	6.5	24 ²⁾	-30/+100	85	3100 ³⁾	E/F/H/-	P/S	
E 8/2 U0/U5 MT HACCP blue FDA	906804	1.6	1.7	6.5	24/r5	-30/+100	92	3200 ³⁾	E/F/H/-	S	
E 8/2 U0/U5 MT-HACCP white FDA	906692	1.6	1.7	7	24/r5	-30/+100	92	3200 ³⁾	E/F/H/-	S	
E 8/2 U0/U5 QS-HACCP white FDA	906777	1.6	1.7	5.5	40 ⁸⁾ /r3	-30/+100	92	2000	E/F/H/-	S	
E 8/2 U0/U8 transparent FDA	900024	2	2.2	7.5	30	-30/+100	85	3050 ³⁾	E/F/H/-	P/S	
E 8/H U0/U2 MT-HACCP blue FDA	906473	1.35	1.25	8	60/r3	-30/+100	85	3100	E/F/H/-	P/S	
E 8/H U0/U2 MT-HACCP white FDA	906451	1.35	1.25	8	60 ⁸⁾ /r3	-30/+100	85	3100	E/F/H/-	P/S	
E 8/H U0/U5 NP-HACCP white FDA	906489	1.6	1.65	7.5	60/r3	-30/+100	85	3100	E/F/H/-	P/S	
E 10/H X0/U2 MT-HACCP transparent FDA	906557	1.25	1.15	8	14/r3	-30/+100	85	3200	E/F/H/-	S	
E 14/2 U0/U4 M-MT white FDA	906698	2.9	3	15.5	50	-30/+100	85	1350 ³⁾ /2900 ⁴⁾	E/F/H/-	5)	
E 18/H U0/U2 MT white FDA	906420	1.75	1.75	17.5	20 ²⁾	-30/+100	85	4750	E/F/H/-	P/S	
U0/U0 – Fabric, polyurethane impregnated											
E 3/1 U0/U0 transparent FDA	906430	0.85	0.6	3	14/r3	-30/+100		3000/4500 ⁴⁾	E/F/H/-	P	
E 3/1 U0/U0 PS blue FDA	906681	0.85	0.7	3	40 ⁸⁾ /r3	-30/+100		3100	E/F/H/-	5)	
E 3/2 U0/U0 transparent FDA	900009	1.2	1.1	4.5	40 ⁸⁾ /r3	-30/+100		4600 ³⁾	E/F/H/-	P/S	
E 4/2 U0/U0 transparent FDA	900206	1.1	1.1	3.75	24 ⁸⁾ /r3	-30/+100		3200/4650 ⁴⁾	E/F/H/M	S	
E 4/2 U0/U0 HACCP-FF blue FDA	906723	1.05	0.9	3.25	30 ⁸⁾ /r3	-30/+100		3100	E/F/H/-	S	
E 12/2 U0/U0 transparent FDA	900040	1.4	1.4	10.5	40	-30/+100		4650 ³⁾	E/F/H/M	S	
V – Polyvinyl chloride											
E 5/2 U0/V3 MT-NA white FDA	900015	1.85	2.15	3	40 ⁸⁾ /r3	-10/+70	65	2800 ³⁾	E/F/H/-	P/S	
E 8/2 U0/V4 MT blue FDA	906595	2.1	2.3	6	30	-10/+70	72	3100 ³⁾	E/F/H/-	P/S	
E 8/2 U0/V5 MT white FDA	900028	2.2	2.5	6	30	-10/+70	65	4500 ³⁾	E/F/H/-	P/S	
E 8/2 U0/V5 NP white FDA	900029	2.1	2.15	6	40	-10/+70	65	3100 ³⁾	E/F/H/-	P/S	
E 8/2 V5/V8 NP/MT blue FDA	906567	2.85	3.2	6	40	-10/+70	72	3100 ³⁾	E/F/H/-	P	
E 8/2 U0/V18 TRI blue FDA	906612	3.5	3.5	5	60	-10/+70	72	1250	E/F/H/-	P/S	
E 10/M V1/V10 MT blue FDA	906533	2.85	3.3	6	60	-10/+70	56	3100 ³⁾	E/F/H/-	P/S	
E 10/M V1/V10 MT white FDA	900092	2.85	3.3	5.75	60	-10/+70	55	3050 ³⁾	E/F/H/-	P/S	
E 12/2 U0/V20 FG-NA white FDA	900051	5.2	3.9	10	60	-10/+70	65	1500 ³⁾	E/F/H/-	5)	
E 12/2 U0/V20 MT-NA white FDA	900050	3.7	4.4	11	60	-10/+70	65	3100 ³⁾	E/F/H/-	P/S	
E 15/M V1/V10 MT white FDA	900093	5	5.3	8.5	125	-10/+70	65	3000 ³⁾	E/F/H/-	5)	
Elastic belts											
UU 20U-NA FSTR/FSTR white FDA	995385	1	1.5	0.3	10	-20/+60		600/1200	E/F/-/-	5)	
UU 20U-NA FSTR/FSTR blue FDA	855576	1.0	1.15	0.25	10	-20/+60		600/1200	E/F/-/-	5)	
UU 40U-NA FSTR/FSTR blue FDA	855584	1.1	1.1	0.5	20	-20/+60		600/1200	E/F/-/-	5)	
UU 60U-NA FSTR/FSTR blue FDA	855595	1.6	1.65	1	20	-20/+60		600/1200	E/F/-/-	5)	
UU 40U-12 NA NP/STR blue HACCP FDA	855629	1.15	1	0.8	14	-20/+60			E/F/-/-	5)	
UU 20U GSTR/FSTR black/blue FDA	855588	1.1	1.15	0.2	10	-20/+60		600/1200	E/F/-/-	5)	
UR 40U-12 FSTR blue FDA	855647	1.2	1.3	0.8	10	-20/+60		600/1200	E/F/-/-	5)	



Tension member

Coatings

Design

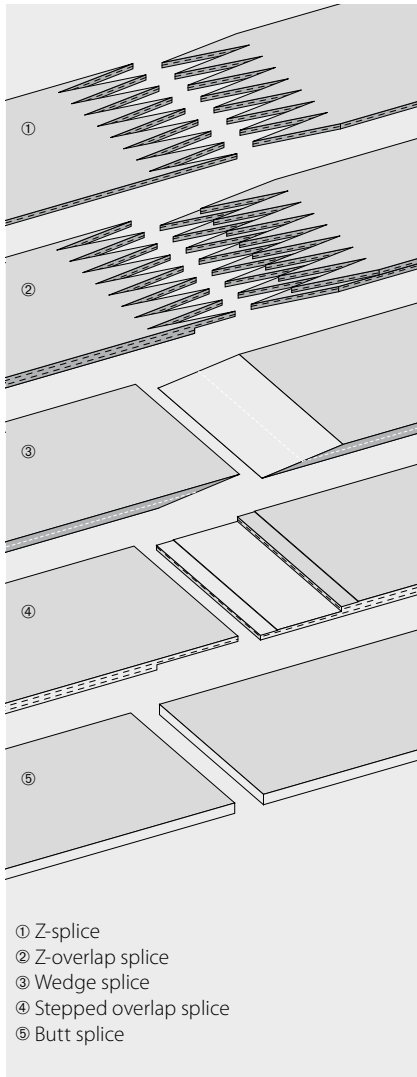
Top face patterns

Belt properties

17

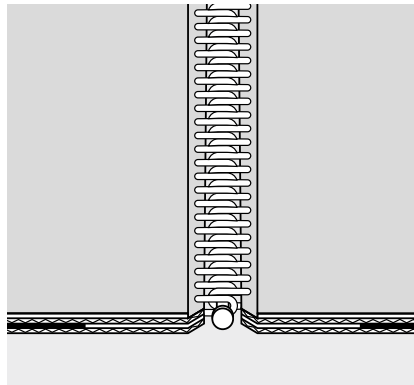
SIEGLING BELTING FABRICATION

Splice types



Different types of splice are used depending on the belt and application. (All types are also suitable for belts with edge sealing).

Mechanical fasteners



Mechanical fasteners allow belts to be made endless quickly and easily. Belts can also be fitted and removed without the need to dismantle parts of the machinery.

Plastic fasteners are normally chosen for the food industry. They are:

- EU- and FDA-compliant
- ideal for use in metal detectors
- also available as versions that can be embedded or heated into the belt coating

Metal fasteners are only used in exceptional cases (e.g. in the agricultural industry).

Using lasers on belts



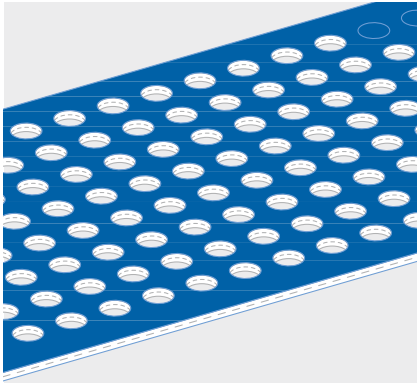
Applying lettering or images by laser is an impressive alternative to screen-printed and foil methods: the printed image is created by recolouring the surface by laser. Because of its extreme durability, precise positioning and crisp printing results, this process opens up new ways of using belts, for example:

- precisely applied positioning grids and control markings for optical sensors help in automated processes (e.g. in pizza manufacturing and bakery machines)
- technical data, belt characteristics and ordering codes can be permanently stored on the top face
- almost any visuals can be added as lasting advertising (i.e. on check-out counter belts)



siegling proposition timing belts

Perforations



Siegling Transilon material can have virtually any number of perforations with high precision tolerances.

Siegling Transilon products are supplied as:

- endless belts
- prepared belts for on-site splicing
- roll material
- belts with mechanical fasteners
- belts with sealed edges (Smartseal, Proseal)
- belts with profiles welded on (longitudinal, lateral, diagonal, semi-circle)
- belts with sidewalls
- belts with perforations
- special designs with metal eyelets, trip foil strips, special markings etc.

Siegling Proposition timing belts

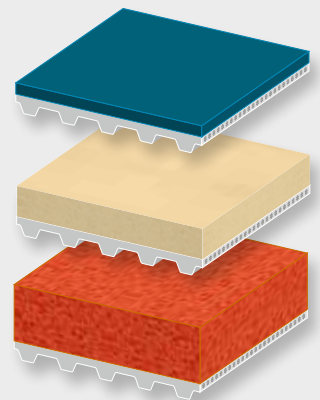
Siegling Proposition timing belts are produced from top-quality polyurethane with embedded tension members made of steel cord or Kevlar. Thanks to their low mass and extreme tensile strength, they are quiet to operate and require almost no maintenance. These characteristics make them ideal for demanding tasks like accelerating and braking, as well as for exact positioning.

A wide range of coatings, patterns and profiles can be applied to standard timing belts. They can be custom-adapted for conveying and processing jobs by adding perforations, or by milling and grinding.

Coatings

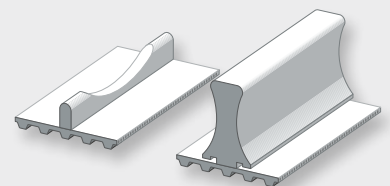
There's a choice of over 30 standard materials for use in filling and packaging machinery. Coatings can provide the following added value:

- improved release characteristics due to better grip
- protection of sensitive products due to coatings' soft surfaces
- better food safety due to FDA compliance



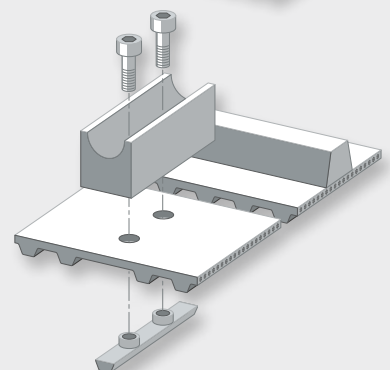
Cams and profiles

Cams and profiles help to produce innovative designs. In addition to numerous standard cams made of semi-finished products, any special types can be made using injection moulding techniques.

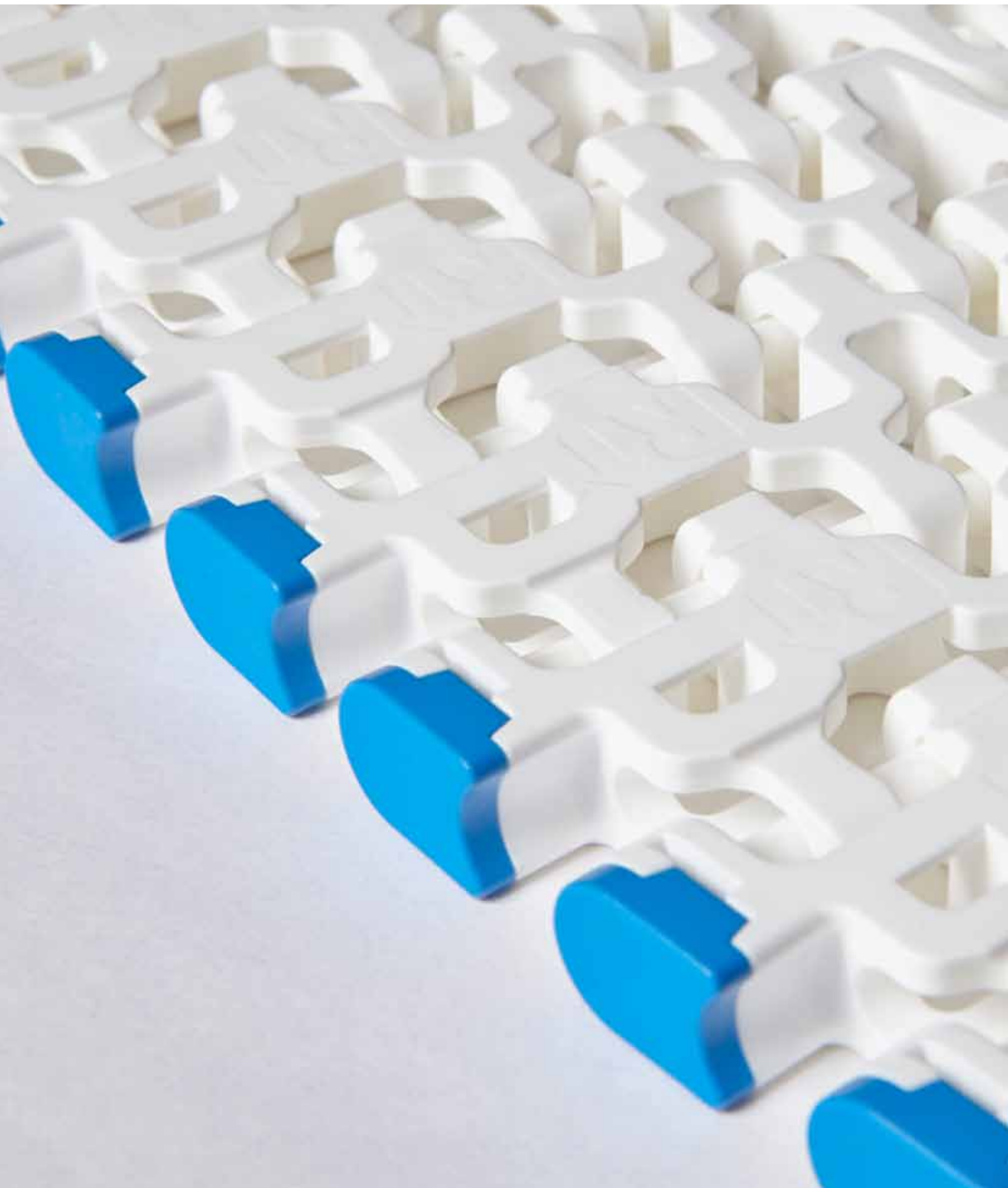


Mechanical processing

Timing belts and coatings can be milled, ground and punched with precise tolerances for special tasks.



You can find detailed information about this range in our **Siegling Proposition timing belts** brochure (ref. no. 245).





siegling prolink
modular belts

SIEGLING PROLINK

... are plastic modular belts made of homogeneous materials that are often superb combinations in conveying and processing. Diverse designs, pitches, patterns and open areas tap into a wide range of uses in food processing.

EU/FDA/
MHLW #370
COMPLIANT



In terms of feedstock and migration figures, Siegling Prolink modular belts made of PE, PP, POM and PA types comply with the most important standard provisions and regulations (see symbols on the left). All Siegling POM Prolink modular belts are certified for compliance with the Halal regulations by IFRC Asian (member of the World Halal Council).

The characteristics

FDA-, EU-, MHLW-
and Halal-compliant
(depending on type)

homogeneous material

robust

open design

resistant to decay

easy to fit

form-fit drive

The advantages

all types are suitable
for direct contact with food

closed surfaces

operate even under extreme conditions

easy to clean, drainage possible

long service lives

save time and money

no creep, reliable tracking

WHAT **SIEGLING PROLINK** CAN DO FOR YOUR HACCP CONCEPT



Siegling Prolink plastic modular belts offer built-in hygiene thanks to fully closed surfaces and homogeneous materials that are EU-, FDA- and USDA-approved. Series 4.1, 6.1 and 10 in particular support your HACCP concept with further hygiene-friendly characteristics.

- easy-clean design with wide channels on the bottom of the modules
- excellent resistance to hydrolysis
- good release properties
- they come in blue as a strong colour contrast

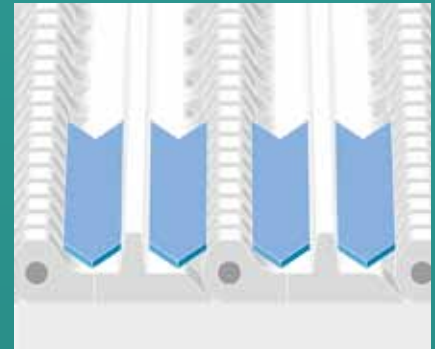
Fewer areas where contamination can occur

Large radii, wide hinge eyelets and perfectly fitted hinge pins don't leave contamination and soiling to chance. (Figure: PL series 6.1)



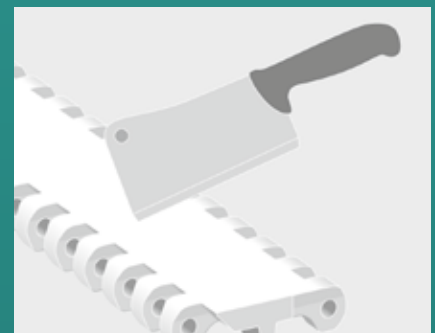
Quick and easy to clean

On the returns, the lengthways and crosswise hinges provide openings for rinsing. On the underside, continuous channels without any annoying ribs make cleaning effective. (Figure: PL series 6.1)



Incision-proof surfaces

POM-CR modules are exceptionally incision-proof and resistant to impact. This minimises the risk of grooves forming and delamination. (Figure: PL series 6.1)

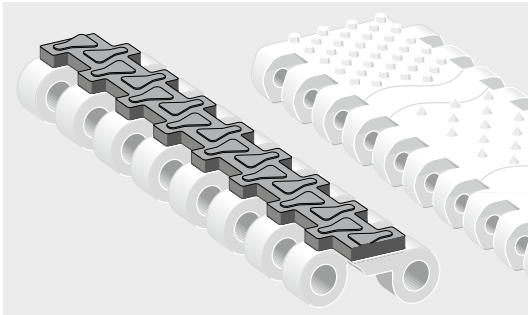


SIEGLING PROLINK

APPLICATION-DRIVEN DETAILS

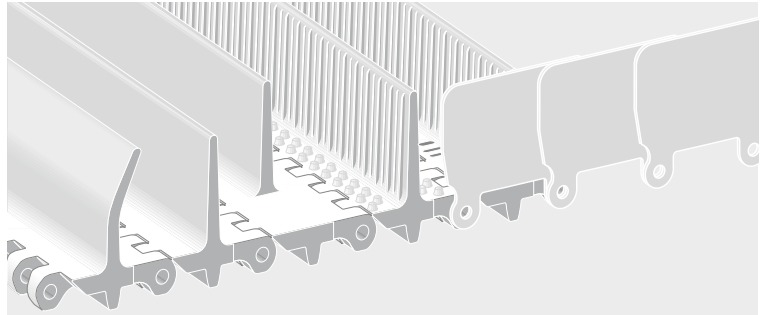


Patterns/grips



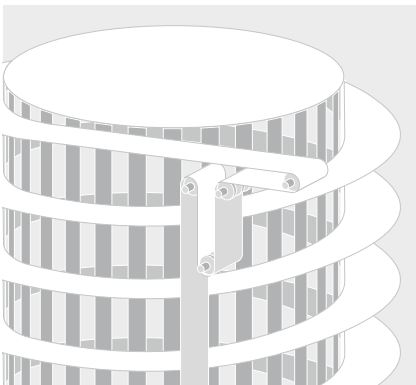
Secure grip is vital during inclined and stop-and-go conveying. Which is why Prolink modules come with patterns and grips to suit the consistency of the product conveyed. There's a choice of nub tops, pointed studs and Friction Top inserts.

Profiles and side guards



Profile modules enhance inclined and steep conveying of bulk goods and small products. Profiles are available in various shapes and dimensions. Special non-slip finishes (NCL) improve release of moist and sticky products. Side guards at different heights can be applied to contain products at the sides.

Spiral towers



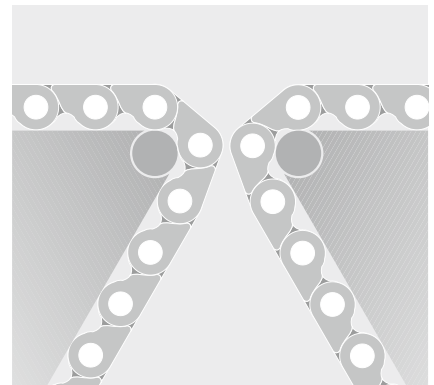
Curved belts with open areas are always used in spiral towers in order to convey baked goods, meat, poultry reliably during cooling, freezing or cooking processes. Special Prolink side modules make sure the system runs very quietly.

Little space required



Siegling Prolink combo belts combine the strength of the popular Prolink series 5 ST with the very small curved radius of series 11. Combo belts enable exceptionally space-saving, high-performance conveyor layouts.



Small return radii



Transferring small items from one area to the next is highly critical. Siegling Prolink allows return radii of just 3 mm (series 13).

SIEGLING PROLINK

FOOD PRODUCT RANGE

Application		Belt types	
Series 1 Pitch 50 mm (2 in)*	Medium to heavy-duty belt for industrial conveying applications.	S1-0 FLT S1-18 FLT S1-0 NSK S1-0 FRT1	Closed, smooth surface Open (18%), smooth surface Closed, anti-skid pattern Closed, friction top
Series 2 Pitch 25 mm (1 in)*	Light-duty belt for food and container handling and for light industrial applications.	S2-0 FLT S2-12 FLT S2-57 GRT S2-57 RRB S2-0 FRT1	Closed, smooth surface Open (12%), smooth surface Open (57%), grid top surface Open (57%), raised ribs for transfer processes Closed, friction top
Series 3 Pitch 50 mm (2 in)*	Medium-duty belt for food and non-food applications. Easy-to-clean, open-hinge design.	S3-0 FLT S3-16 FLT S3-0 LRB S3-16 LRB	Closed, smooth surface Open (16%), smooth surface Closed, with lateral ribbing Open (16%), with lateral ribbing
 Series 4.1 Pitch 14 mm (0.55 in)*	Light to medium-duty belt for food and non-food applications. Small pitch allows tight product transfers, including nose bars.	S4.1-0 FLT S4.1-0 NPY S4.1-0 FRT1 S4.1-21 FLT S4.1-21 NTP	Closed, smooth surface Closed, with inverted pyramid pattern Closed, friction top Open (21%), smooth surface Open (21%), with round studs
 Series 6.1 Pitch 50 mm (2 in)*	Medium to heavy-duty belt designed specifically for demanding applications in meat, poultry and seafood processing, including cutting, deboning and skinning lines. Easy-to-clean, open hinge design.	S6.1-0 FLT S6.1-0 NTP S6.1-0 CTP S6.1-21 FLT S6.1-23 FLT S6.1-36 FLT	Closed, smooth surface Closed, with round studs Closed, with pointed studs Open (21%), smooth surface Open (23%), smooth surface Open (36%), smooth surface
Series 8 Pitch 25.4 mm (1 in)	Medium to heavy-duty belt for industrial applications.	S8-0 FLT S8-0 SRS S8-0 NSK S8-25 RAT S8-0 FRT1 S8-0 RTP A90	Closed, smooth surface Closed, slip-resistant surface Closed, anti-skid pattern Open (25%) surface with rounded contact surfaces Closed, friction top Closed surface, with roller top

¹⁾ NSF-compliant from the Huntersville plant (US)






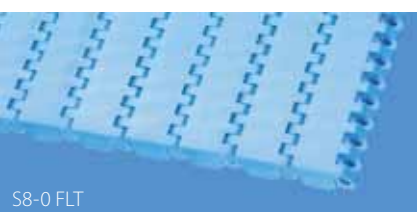


The Siegling Prolink series have been designed to handle a variety of conveying and processing jobs. Detailed information is included in the Siegling Prolink overview of the range (ref. no. 800). Further technical information on request.

* All imperial measurements have been rounded up.

** Not all materials are available in all colours.

CTP	=	Cone top
FLT	=	Flat top (smooth)
FRT(X)	=	Friction top (Design X)
GRT	=	Grid top
LRB	=	Lateral rib
NPY	=	Inverted pyramid
NSK	=	Non skid
NTP	=	Nub top (round studs)
RAT	=	Radius top
RTP	=	Roller top
RRB	=	Raised rib
SRS	=	Slip-resistant surface
F2 – F8	=	Collapse factor modules
HD	=	Hold Down
G	=	Guided
RG	=	Reversed guided
ST	=	Strong (S5)
PA	=	Polyamide
PA-HT	=	PA high temperature
PE	=	Polyethylene
PE-MD	=	PE metal detectable
POM	=	Polyoxymethylene (Polyacetal)
POM-CR	=	POM cut resistant
POM-HC	=	POM highly conductive
POM-MD	=	POM metal detectable
PP	=	Polypropylene
PP-MD	=	PP metal detectable
PXX-HC	=	Self-extinguishing highly conductive material
R6	=	TPE 63 Shore A, POM
R7	=	TPE 50 Shore A, PP
R8	=	TPE 55 Shore A, PE
AT	=	Anthracite
BL	=	Blue
BK	=	Black
DB	=	Dark blue
LB	=	Light blue
LG	=	Light grey
UC	=	Uncoloured
WT	=	White
YL	=	Yellow

		Materials**	Colours (standard)**	Pitch [mm (in)]*
	S1-0 FLT	PE, PP, POM, POM-HC	AT, WT, YL	50 (2)
	S2-0 FLT	PE, PP, POM, PA 6.6-HT	BL, WT	25 (1)
	S3-0 FLT	PE, PP, POM	BL, WT	50 (2)
	S4.1-0 FLT	PE, PE-MD, PE (R8), PP, PP (R7), POM, POM-MD, POM (R6), PA-HT	BK, BL, BL (BK), UC, WT, WT (BK)	14 (0.55)
	S6.1-0 FLT	PE, PE-MD, PP, PP-MD, POM, POM-CR, POM-MD, PA	BL, LB, WT	50 (2)
	S8-0 FLT	PE, PP, PP (R7), POM, POM (R6), POM-CR, POM-HC, PXX-HC, PA-HT	AT, BL, BL (BK), BK, LG, LG (BK), WT, YL	25.4 (1)

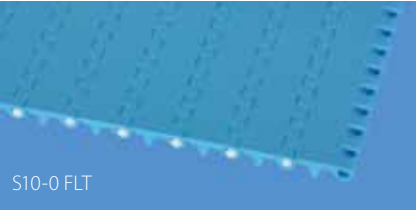
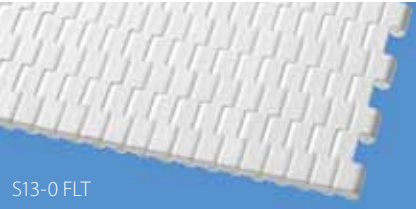
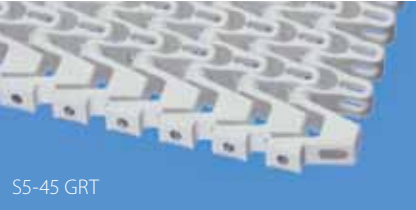


SIEGLING PROLINK

FOOD PRODUCT RANGE

Application		Belt types	
 Series 10 Pitch 25.4 mm (1 in)	Light to medium-duty belt for products in hygiene-sensitive applications.	S10-0 FLT	Closed, smooth surface
		S10-22 FLT	Open (22%), smooth surface
		S10-0 NTP	Closed, with round studs
		S10-36 FLT	Open (36%), smooth surface
		S10-36 LRB	Open (36%), with lateral ribbing
Series 13 Pitch 8 mm (0.31 in)	Light and medium-duty belt for food and non-food nosebar applications.	S13-0 FLT	Closed, smooth surface
		S13-0 NPY	Closed, with inverted pyramid pattern
Series 5 Pitch 25 mm (1 in)*	Light and medium-duty radius and spiral belt with stainless steel hinge pins. Exceptionally strong and versatile curved belt with large open area.	S5-45 GRT	Open (45%), lattice shaped
		S5-45 NTP	Open (45%), lattice shaped with high round studs
		S5-39 FRT1	Open (39%), lattice shaped, friction top, raised
		S5-33 FRT2	Open (33% for full FRT2 surface area), lattice shaped, friction top, flat
		S5-45 GRT G	Open (45%), lattice shaped, guided
Series 9 Pitch 50 mm (2 in)*	Medium to heavy-duty radius and spiral belt with stainless steel hinge pins. Exceptionally strong and versatile curved belt with large open area.	S5-45 GRT RG	Open (45%), lattice shaped, reversed guided
		S5-45 GRT ST	Reinforced type, open (45%), lattice shaped
		S9-57 GRT	Open (57%), lattice shaped
		S9-57 NTP	Open (57%), lattice shaped with round studs
		S9-57 GRT G	Open (57%), lattice shaped, guided
Series 11 Pitch 25 mm (1 in)*	Curved belt for conveying lightweight products. The belt is particularly light and has a small curve radius.	S9-57 GRT	Longer side modules, open (57%), lattice shaped
		F2, F3, F4, F5, F6, F7, F8	Collapse factor modules
		S11-45 GRT	Open (45%), lattice-shaped, with replaceable caps
		S11-45 GRT HD	Open (45%), lattice-shaped, with replaceable Hold Down caps
		S11-33 FRT2	Open (33% for full FRT2 surface area), lattice-shaped, friction top, flat

¹⁾ NSF-compliant from the Huntersville plant (US)



		Materials**	Colours (standard)**	Pitch [mm (in)]*
	S10-0 FLT	PE, PE-MD, PP, PP-MD, POM, POM-MD, PA	BL, LB, WT	25.4 (1)
	S13-0 FLT	POM	BL, WT	8 (0.31)
	S5-45 GRT	PE, PP, POM-CR	BL, DB, WT	25 (1)
	S9-57 GRT	PE, PP, POM, POM-CR, PA	BL, DB, LG, WT	50 (2)
	S11-45 GRT	PP, POM-CR, PA	WT, BL	25 (1)

Type designation for Siegling Prolink (simplified)

S4.1	0	FLT
S5	45	GRT
S2	57	RRB
Series	Open area	Surface pattern

* All imperial measurements have been rounded up.

** Not all materials are available in all colours.

CTP	=	Cone top
FLT	=	Flat top (smooth)
FRT(X)	=	Friction top (Design X)
GRT	=	Grid top
LRB	=	Lateral rib
NPY	=	Inverted pyramid
NSK	=	Non skid
NTP	=	Nub top (round studs)
RAT	=	Radius top
RTP	=	Roller top
RRB	=	Raised rib
SRS	=	Slip-resistant surface
F2 – F8	=	Collapse factor modules
HD	=	Hold Down
G	=	Guided
RG	=	Reversed guided
ST	=	Strong (S5)
PA	=	Polyamide
PA-HT	=	PA high temperature
PE	=	Polyethylene
PE-MD	=	PE metal detectable
POM	=	Polyoxymethylene (Polyacetal)
POM-CR	=	POM cut resistant
POM-HC	=	POM highly conductive
POM-MD	=	POM metal detectable
PP	=	Polypropylene
PP-MD	=	PP metal detectable
PXX-HC	=	Self-extinguishing highly conductive material
R6	=	TPE 63 Shore A, POM
R7	=	TPE 50 Shore A, PP
R8	=	TPE 55 Shore A, PE
AT	=	Anthracite
BL	=	Blue
BK	=	Black
DB	=	Dark blue
LB	=	Light blue
LG	=	Light grey
UC	=	Uncoloured
WT	=	White
YL	=	Yellow

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 2,200 people. Our products are manufactured in nine 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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MOVEMENT SYSTEMS