

siegling
belting

PAPER & PRINT

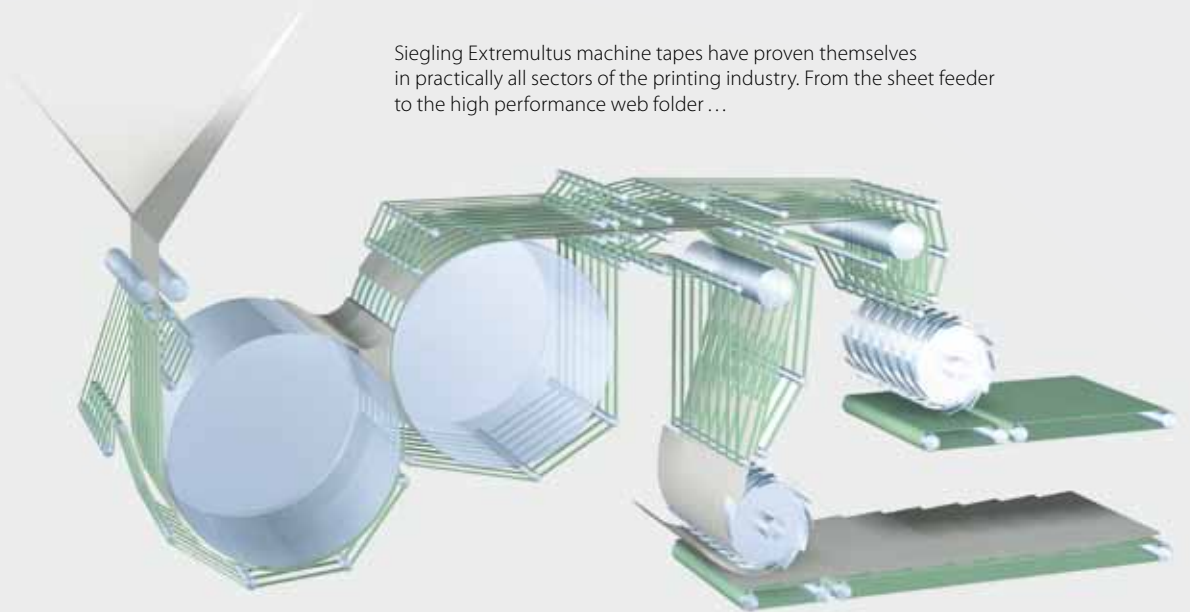
Machine tapes for the printing industry



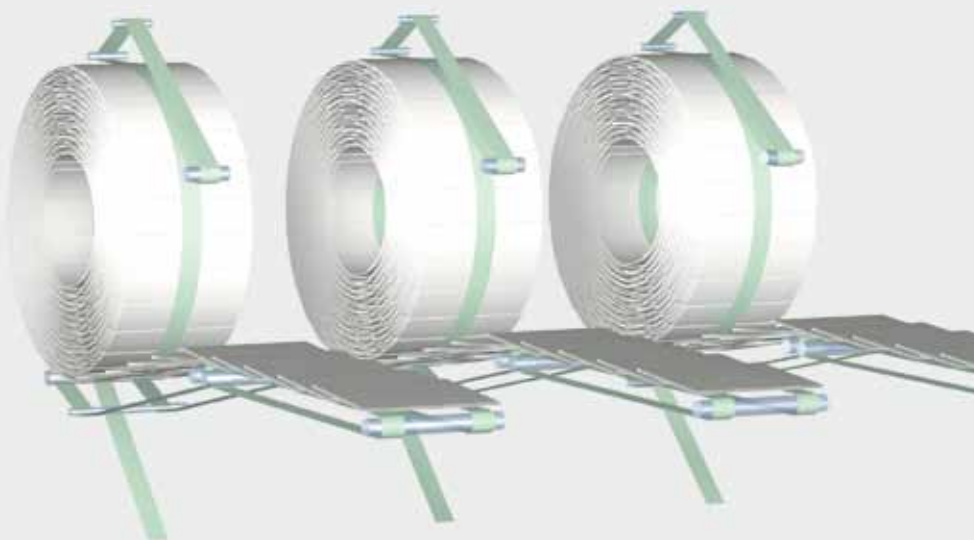
TOP PERFORMANCE LEVEL: **POLYESTER LINE MACHINE TAPES**

For decades, Forbo Siegling has had a reputation as a partner in development and as a supplier for machine manufactures and users in the paper, printing and packaging industry. In this industry, Siegling Extremultus machine tapes and Siegling Transilon conveyor and processing belts are the first choice for nearly all functions and processes.

Siegling Extremultus machine tapes have proven themselves in practically all sectors of the printing industry. From the sheet feeder to the high performance web folder ...



... to various post-press points.



Thanks to the Siegling Extremultus Polyester line machine tapes, the potential for quality and productivity of tried-and-tested machine designs can be used to the fullest.

The highly-modular thermoplastic tension member design with polyester fabric in conjunction with extremely wear-resistant surfaces means a broad range of applications is possible: rotogravure, commercial web offset (heatset) and newspaper printing (coldset) right up to the high performance web folder.

The splicing method (Z-splice) does not require any additional materials and provides the flexibility and durability required by small drum diameters.

Handy Z-punch cutters and small heating clamps make it possible to fit directly on the machine easily with shorter fitting times.

The properties

The advantages

largely unaffected by fluctuations in ambient conditions	▶	maintenance free, no re-tensioning, very reliable
simple and precise Z-splice, homogeneous welding	▶	shorter fitting times, no adhesive
high elastic modulus	▶	shorter take-up ranges
low elongation at fitting	▶	low shaft load
very flexible	▶	small drum diameters low power consumption
constant drag with high wear-resistance	▶	reliable function, low operating costs

Information about other Forbo Siegling for the printing industry can be found in the following brochures:

No.	Title
224	Siegling Transilon conveyor and processing belts
225	Siegling Extremultus power transmission belts
244	Siegling Linpack folder and carrier belts
275	Paper & Print – Machine tapes for the paper industry and letter sorting
284	Paper & Print – Folder and carrier belts
279	Siegling Belting tools

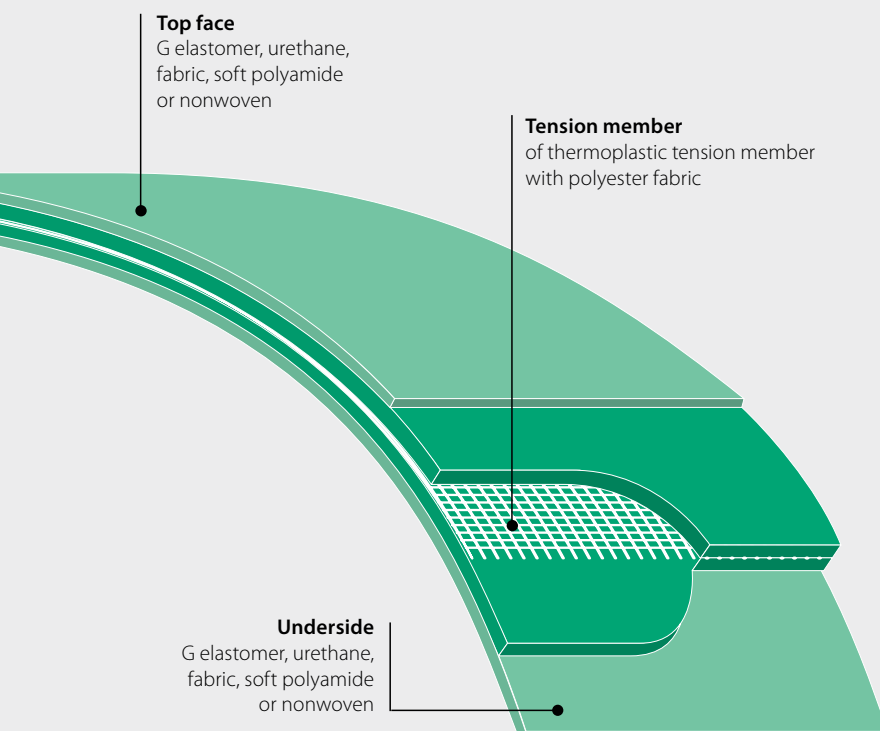


Commercial web offset

Paper web speeds up to 18 m/s can be achieved only by using folder belts with special tension members. The most varied of paper types must be conveyed through the folder precisely and reliably, and at the same time the belts must have a long service life.

With a polyester-based fabric tension member, the Polyester line meets these requirements without cutting back on edge stability or lateral tear resistance.

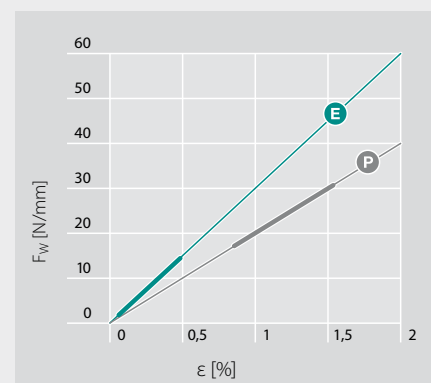
The Polyester line



Tension member

The tension member made of polyester fabric embedded in thermoplastic combines good damping properties and break resistance with high flexibility.

A special fabric design of highly-modular polyester fabric in warp and weft provides a linear load/extension curve with high lateral tear resistance and edge stability.



Thanks to the low elongation at fitting (area marked) the Polyester types produce a lower shaft load in comparison to conventional products with polyamide tension members.

With its machine tape product range, Forbo Siegling provides solutions for the special requirements of the various printing processes and all types of post-press.

Sheet fed printing

The exact feeding of the sheets into the printer is decisive for the continuous production in offset printing.

In addition to the belts with elastomer coating conventionally used for sheet feeders, ever more alternatives with textile, urethane or soft-polyamide surfaces are being used. Thanks to its optimal load/extension ratio and that it is unaffected by ambient conditions the Polyester line does not require any re-tensioning even after long periods of operation.

Rotogravure printing

The folding of freshly printed paper requires that the belts convey precisely, gently and without marking in all areas of the folder – above all in the cutting section.

The advantages of the Polyester line tension member in conjunction with a polyester nonwoven coating are that they can even fulfil the demands of double-width folders and minimise smearing.

Newspaper printing

The abrasive character of printed newspaper requires that folder belts in the folder have highly abrasive resistant surfaces.

Ink smearing is prevented by adhesive or impregnated surfaces and the service life is also increased.

Operational coating/friction coating

Surface coatings/coverings suited for all requirements in the printing industry:

- G elastomer coating which is exceptional for its drag, extreme resistance to wear and gentle conveying without marking and ink smear.
- polyester nonwoven with significantly better smear properties in the folder and good belt life. It is possible to change the products without changing the belt.
- fabric surfaces for universal use with good release properties and long belt-life.

Splicing technology:

Siegling Extremultus Polyester line machine tapes are made endless with a Z-splice. Together with our practical finishing tools, this splicing method provides significant benefits:

- extremely fast preparation and fabrication of splice in the machine
- no additional materials required
- extremely flexible and durable splice
- detailed instructions for all equipment and machine tape types

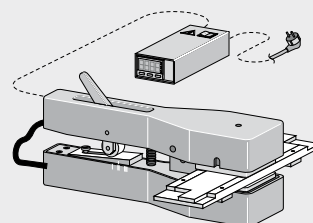
The Siegling Extremultus heating clamps can also be supplied as belting tool sets complete with accessories or as a fitting set in a practical case.

Our tools overview, tool sheets and instructions – also for Siegling Transilon conveyor and processing belts – are available on request.

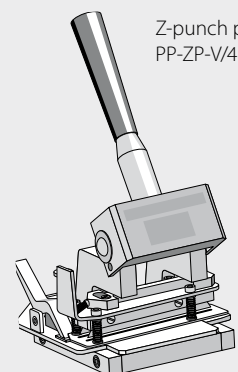


Fitting set

Heating clamp
SM-HC-50/40
SM-HC-50/60
SM-HC-50/80



Z-punch press
PP-ZP-V/40-3



Technical data & Applications

Article Number	Thickness approx. [mm]	Weight approx. [kg/m ²]	F _w value approx. [N/mm width]*	Effective pull at 1% elongation (k _{1%} relaxed) [N/mm width]**	d _{min} [mm]***	Web Folder Newspaper (coldset)	Web Folder commercial Web offset (heatset)	Web Folder rotogravure	Sheet feed printing, Folding machines	Finishing, post press, Mail room, discharge, Cross-cutter
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Siegling Extremultus machine tapes										
TT 6E black/grey	822103	1.0	1.0	6	-	14	●	●	●	●
TT 10E-HC black	822096	1.0	1.0	10	-	24	●	●	●	●
TT 10E green	822072	1.1	1.2	10	-	20	●	●	●	●
TT 15E-18-HC black	822146	1.8	1.7	15	-	30		●	●	
TR 10E black/grey	822120	1.45	1.4	10	-	20			●	●
UN 6E green/grey ¹⁾	822091	1.9	2.0	6	-	24		●	●	●
UP 6E GSTR/GL black/transparent	822134	1.2	1.3	5	-	30 (24)	●			●
TG 6E grey	822109	1.0	1.1	6	-	14	●		●	●
TG 10E black/green	822081	1.3	1.4	10	-	20	●	●	●	●
TG 30E-30 black/green	822058	3.0	3.2	30	-	40		●		●
PU 8E green	995453	1.4	1.5	8	-	24	●		●	●
UR 8E-HC+ FSTR/FSTR green/grey	822132	1.5	1.6	8	-	24	●		●	●
UT 8E green	822060	0.7	0.6	8	-	14	●	●	●	●
GG 5E grey	822115	1.4	1.4	5	-	14 (10)	●		●	●
GG 8E green	822062	1.5	1.6	8	-	14	●	●	●	●
GG 15E-18 green	822053	1.8	2.0	15	-	20		●	●	●
GG 20E-20 green	822052	2.0	2.3	20	-	24		●	●	●
GG 30E-25 NSTR/FSTR grey/black	822126	2.5	2.75	30	-	30		● ²⁾	● ²⁾	
GG 30E-32 FSTR/FSTR black	822118	3.0	3.55	30	-	40		● ⁴⁾	● ⁴⁾	
UU 20E-16 FSTR/FSTR green	822055	1.6	1.85	20	-	30	●		● ²⁾	●
UU 25E-27 FSTR/GL green ⁵⁾	822088	2.7	3.05	23	-	40			●	●
UU 30E-32 FSTR/FSTR green	822105	3.2	3.55	30	-	30		● ⁴⁾		
GG 40U green	855552	1.4	1.6	0.8	-	20			●	●
PN 75P green/grey	855503	1.5	1.3	1.5	-	14			●	●
UU 20U black/green	850207	1.1	1.2	0.4	-	10			●	●
UU 20U-HC+ FSTR/FSTR black	855631	1.1	1.2	0.4	-	20			●	●
UU 40U black/green	850208	1.1	1.2	0.8	-	14			●	●
UR 40U-HC+ GSTR/NSTR black/grey	855636	1.45	1.45	0.8	-	14			●	●
UU 40U GSTR/GL black/green	995207	1.0	1.05	0.8	-	14			●	●
UU 60U black/green	850289	1.5	1.6	1.2	-	14			●	●

Siegling Transilon conveyor belts with polyester tension member										
E 3/2 U0/G8 NSTR green	900369	2.0	2.0	-	3	30 (Z)		● ³⁾	● ³⁾	●
E 4/2 A0/A2 MT-HACCP white FDA	906660	1.3	1.15	-	5	5	●			●
E 5/2 0/V5H MT black	906176	1.9	2.2	-	4.5	50	● ³⁾	● ³⁾	● ³⁾	●
E 8/2 U0/R10 LG black	906630	2.5	2.3	-	8	40	● ³⁾	● ³⁾	● ³⁾	●
E 8/2 U0/V5 green	900025	2.2	2.55	-	8	40	● ³⁾	● ³⁾	● ³⁾	●
E 8/2 U0/V7 SG black	906286	2.3	2.45	-	8	40	● ³⁾	● ³⁾	● ³⁾	●
E 8/2 U0/U2 green	900320	1.4	1.6	-	7.5	24	●	●	●	●
E 8/2 U0/U2 LF green	906450	1.5	1.6	-	7.5	24	●	●	●	●
E 8/2 U0/U8 transparent	900024	2.0	2.2	-	7.5	30 (Z)	●	● ³⁾	●	●
E 8/2 0/U10 S/LG green	904358	2.2	2.2	-	8	40	● ³⁾	● ³⁾	● ³⁾	●
E 10/2 0/P2 GL transparent	906459	1.9	1.9	-	17	40 (Z)	●		●	●
E 12/2 A0/A3 MT-TT green	900347	1.8	1.8	-	14	60				●

Further information about the Siegling Transilon product range available on request.

Legend

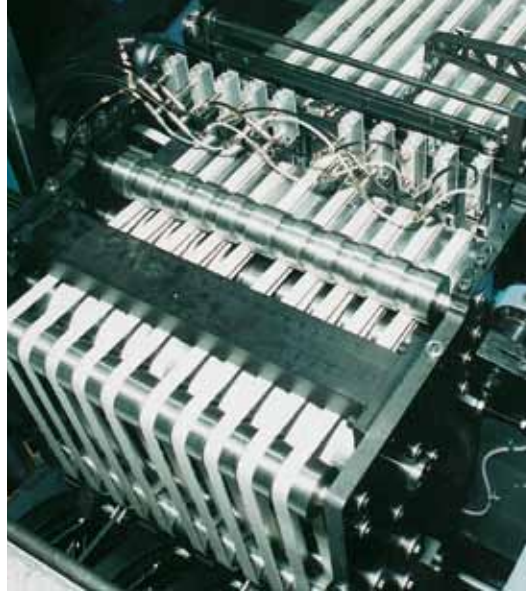
* The F_w value indicates the shaft load at 1% elongation in N/mm belt width. It represents a parameter, which in contrast to the ultimate tensile strength, gives a direct indication of the tensile force in the belt.

** Established in line with ISO 21181:2005.

*** Minimum drum diameters were determined at room temperature and do not apply to conveyor belts with mechanical fasteners. Lower temperatures require larger drum diameters. Belts with profiles or sidewalls may require larger drum diameters. Please see brochure ref. no. 318, Siegling Transilon Technical Information 2.

- 1) Normally the nonwoven coating (N) is used facing the product
- 2) Only as lift-up belt
- 3) Only for transfer and outfeed
- 4) Only transmission belt reel stand
- 5) Usually overhead conveying system, w = 50, 60 mm with LP K15x5.5-U65 on underside
- 6) Please specify the belt length, width, type of splice and if applicable the pre-tension required. For belts lengths <500 mm and >125 m, please enquire.

A	Polyolefin	FSTR	Fine textured pattern
E	Polyester	NSTR	Normal pattern
G	Elastomer G	GL	Smooth surface
N	Polyester nonwoven	LG	Longitudinal groove
P	Polyamide	MT	Matt surface
R	High Grip	SG	Lattice pattern
T	Mixed or polyamide fabric	HC	Conductive belt surfaces
U	Polyurethane	HC+	Conductive belt surface + conductive through the belt
V	PVC	LF	Low friction
VH	Hard PVC	S	Very low noise
		TT	Pyrolysis compliant



Chemical resistance

Siegling Extremultus is permanently antistatic, to a large extent maintenance-free and has good chemical resistance to wet conditions, moisture, white-spirit, household cleaning agents and solvents common in the paper and printing industry. It has limited resistance to alcohols.

Permanent contact with acetone, solvents, chlorinated hydrocarbons and concentrated acids should be avoided.

Further information about chemical resistance available on request.

Supplied as:

- roll material for belt finishing by the customer
- endless belts⁶⁾
- belts prepared for hot-pressing on site⁶⁾
- customised belts with perforations – please enquire

Type designation for Siegling Extremultus

TT	10E - HC		black
UU	30E - 32	FSTR/FSTR	green

					Colour(s) (top face/underside)
					Pattern (top face/underside)
					Total thickness [1/10 mm] or electrostatic property
					Material of tension member
					Type number
					Top face
					Underside

Type designation for Siegling Transilon

E	4 / 2	A0 / A2	MT-HACCP	white	FDA
E	8 / 2	U0 / V7	SG	black	

						Belt property
						Colour
						Pattern
						Top face coating [1/10 mm]
						Underside coating [1/10 mm]
						Number of plies or special fabric (M or H)
						Type class
						Material of fabric

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.



Ref. no. 271-2
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Forbo Siegling service – anytime, anywhere

The Forbo Siegling Group employs more than 2,300 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