

Paper & Print

Machine tapes
for the printing industry

siegling
belting

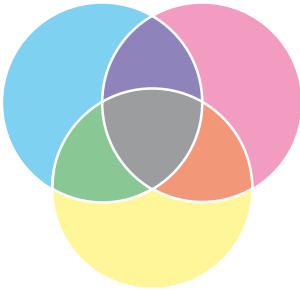


Siegling – total belting solutions

forbo

MOVEMENT SYSTEMS

Top performance level: E line machine tapes



For decades, Forbo Siegling has had a reputation as a partner in development and as a supplier for machine manufacturers 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.

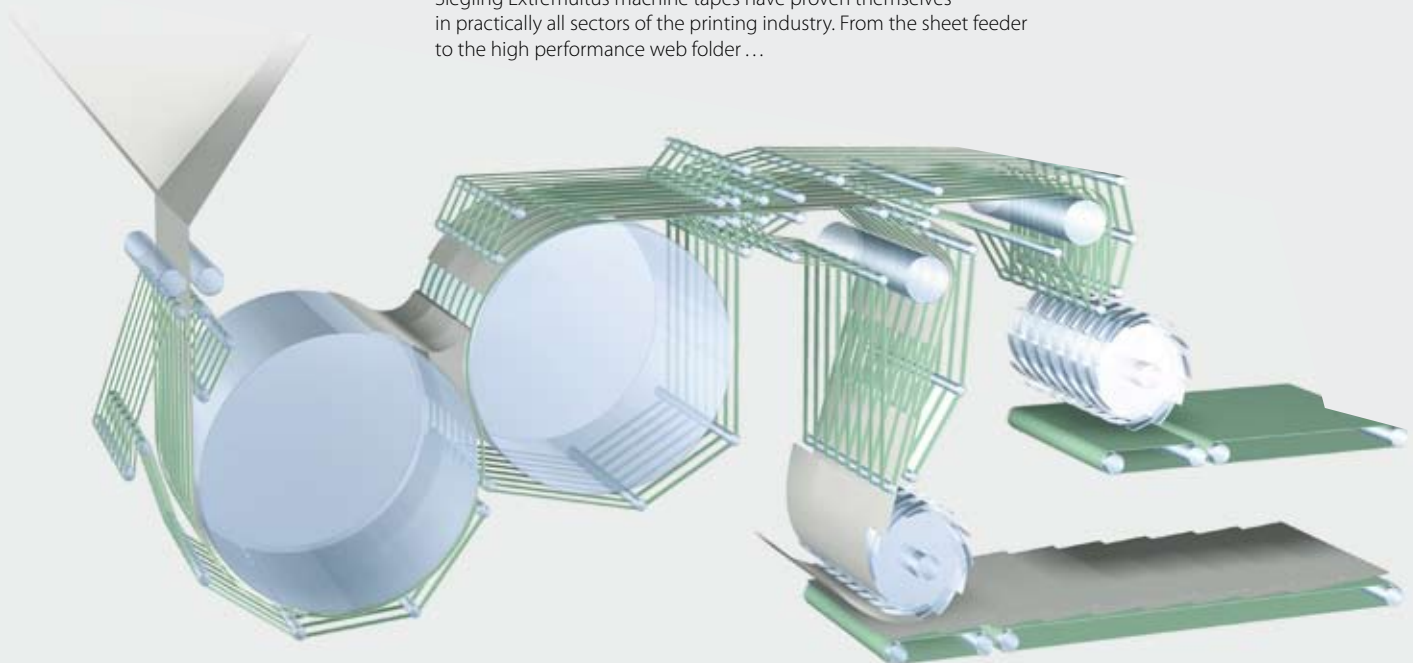
Thanks to the Siegling Extremultus E line machine tapes, the potential for quality and productivity of tried-and-tested machine designs can be used to the fullest. The highly-modular thermoplastic tension

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.

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 ...



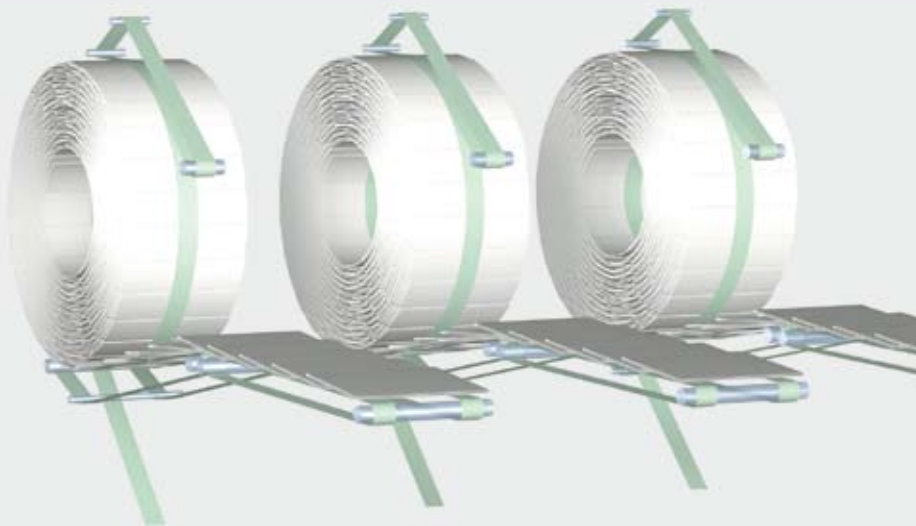
The properties

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
275	Paper & Print – Machine tapes for the paper industry and letter sorting
284	Paper & Print – Folder and carrier belts
244	Siegling Linpack folder and carrier belts
224	Siegling Transilon conveyor and processing belts
225	Siegling Extremultus power transmission belts
279	Siegling Belting tools



... to various post-press points.

forbo

MOVEMENT SYSTEMS



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.

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 E line meets these requirements without cutting back on edge stability or lateral tear resistance.

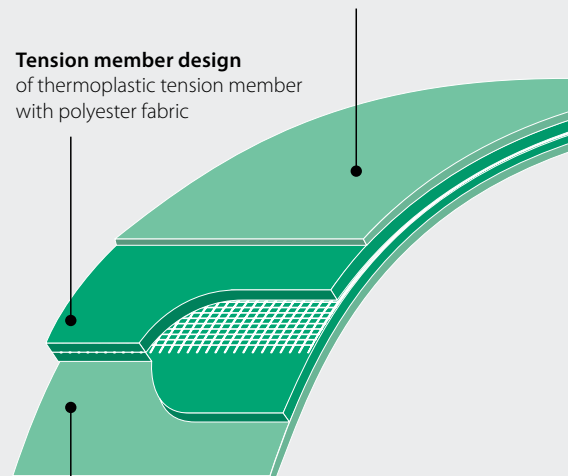
The E line:

Friction coating

G elastomer, urethane, fabric, soft polyamide or nonwoven

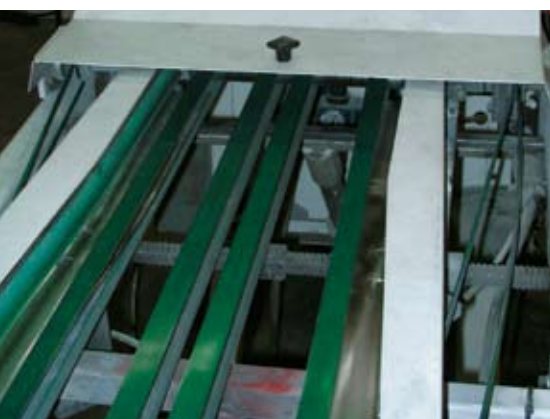
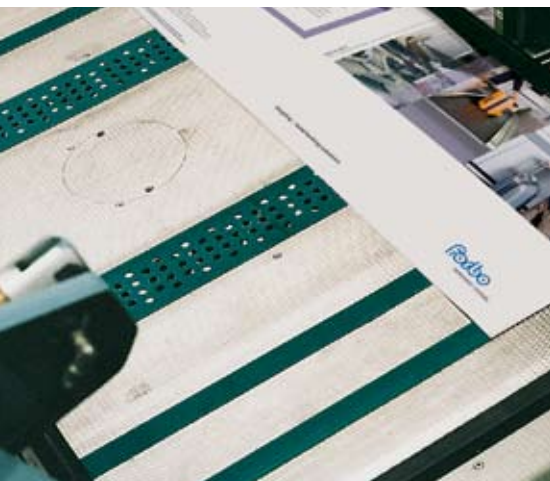
Tension member design

of thermoplastic tension member with polyester fabric



Friction coating

G elastomer, urethane, fabric, soft polyamide or nonwoven



Sheet fed printing

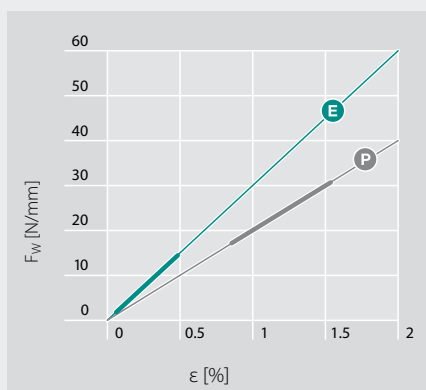
The exact feeding of the sheets into the printer is decisive for the continuous production in offset printing.

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 E line does not require any re-tensioning even after long periods of operation.

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 E types produce a lower shaft load in comparison to conventional products with polyamide tension members.

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 E 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.

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.



Fitting set

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 dehesive or impregnated surfaces and the service life is also increased.

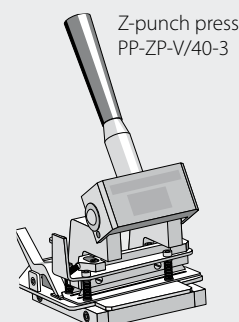
Splicing technology:

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

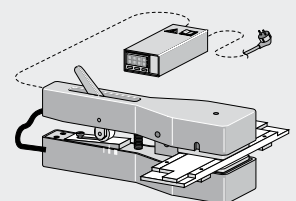
- extremely fast preparation and fabrication of splice in the machine
- no additional materials required
- extremely flexible and durable splice
- detailed instructions for all equipment and machine tape types

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.



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



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

Extract from the product range

Technical data	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] ***
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 grey	822070	1.8	1.5	15	-	24
UN 6E green/grey ¹⁾	822091	1.9	2.0	6	-	24
TG 6E black/green	822080	1.0	1.2	6	-	10
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
UT 8E green	822060	0.7	0.6	8	-	14
GG 3E green	825558	1.5	1.5	3	-	14
GG 5E grey	822115	1.4	1.4	5	-	20
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 25E-25 green	822074	2.5	2.7	25	-	40
GG 30E-32 green	822051	3.2	3.4	30	-	40
UU 20E-16 FSTR/FSTR green	822055	1.6	1.85	20	-	30
UU 30E-32 FSTR/FSTR green	822105	3.2	3.55	30	-	30
GG 40U green	855552	1.4	1.6	0.8	-	20
PN 40P green/grey ¹⁾	855573	1.5	1.3	0.8	-	14
UG 50U black/green	855599	1.6	1.7	1	-	20
UU 20U black/green	850207	1.1	1.2	0.4	-	10
UU 40U black/green	850208	1.1	1.2	0.8	-	14
UU 40U black/green GL	995207	1.0	1.0	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	30/50
E 5/2 0/V5H MT black	906176	1.9	2.2	-	4.5	50
E 8/2 U0/R10 LG black	906630	2.5	2.3	-	8	40
E 8/2 U0/V5 green	900025	2.2	2.55	-	8	40
E 8/2 U0/V7 SG black	906286	2.3	2.45	-	8	40
E 4/2 U0/U2 MT white	900207	1.4	1.6	-	4	14
E 4/2 U0/U2 LF white	906373	1.4	1.5	-	4	14
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	40/60
E 8/2 0/U10 S/LG green	904358	2.2	2.2	-	8	40
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.

A Polyolefin
E Polyester
G Elastomer G
N Polyester nonwoven
P Polyamide
T Mixed or polyamide fabric
U Polyurethane

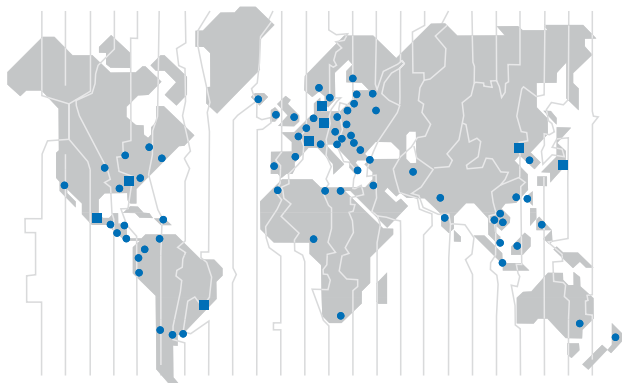
FSTR Fine textured pattern
GL Smooth surface
LG Longitudinal groove
MT Matt surface
NSTR Normal pattern
R High Grip
SG Lattice pattern

HC Highly-conductive
LF Low friction
S Very low noise
TT Pyrolysis compliant

Siegling – total belting solutions

Committed staff, quality-orientated organisation and production processes ensure the constantly high standards of our products and services. The Forbo Siegling Quality Management System is certified in accordance with DIN EN 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.



Forbo Siegling Service – anytime, anywhere

In the company group, Forbo Siegling employs more than 2000 people worldwide. Our production facilities are located in eight countries; you can find companies and agencies with stock and workshops in more than 50 countries. Forbo Siegling service centres provide qualified assistance at more than 300 locations throughout the world.