

TRANSEVO™

COVER GRADES THAT SAVE UP TO 25% ENERGY,
REDUCING YOUR OPERATING COSTS



PRODUCT SHEET



TransEvo is a family of advanced Sempertrans cover compounds. They reduce energy use by up to 25% compared to conventional belts – to reduce your operating costs. Reduced energy use also makes TransEvo the preferred ecological choice for less environmental impact.

THE CONCEPT

TransEvo is designed as a more ecological solution. The special rubber compound of TransEvo significantly reduces rolling resistance due to indentation losses as the belt runs over the idlers. The resulting energy savings – up to 25% – is proved by both external testing facilities and field tests at customers' sites.






PRODUCT FEATURES

- Special rubber compound significantly reduces rolling resistance
- Opportunity to reduce belt drive nominal power (e.g. from 170 kW to 145 kW) for new installation calculations
- Opportunity to reduce belt nominal strength (e.g. from ST1250 to ST1000) for new installations.

HIGHLIGHTS

- Save up to 25% on energy
- Lower operating costs
- Eco-friendly innovation
- Excellent impact and abrasion resistance
- Field-proven performance trusted by customers, third-parties
- Recommended for steel cord belts on conveyors >1,000 m long
- Also available for underground use

APPLICATIONS

-  Overland conveyors
-  Cement industry
-  Open-pit and underground mining
-  Port operations
-  Lignite and rock mining

AVAILABLE FOR THE FOLLOWING BELT TYPES

Sempercord Autostable Transpipe Ripstop

UPGRADED TRANSEVO ULTRA Now saves even more

We have redeveloped our TransEvo Ultra compound to offer even better energy savings by reducing indentation rolling resistance by additional 10% which can lead to up to 25% savings in overall conveyor energy consumption. The updated version is running already around the world, for example in ThyssenKrupp's Quellaveco project in Peru.



BENEFITS OF TRANSEVO™

FOR EXISTING INSTALLATIONS VS. STANDARD BELTS

- Lower operating costs from reduced energy use
- Often lower belt costs from reduced belt strength (due to lower tension forces in the belt)

FOR NEW INSTALLATIONS

- Lower operating costs from reduced energy use
- Reduced conveyor drive nominal power due to lower indentation rolling resistance
- Lighter and thinner carcasses, as lower belt forces require lower nominal strength
- Smaller gearboxes and drives from reduced pulley diameters (thanks to thinner carcasses)

As a result, TransEvo belting allows significant savings in both operational costs and the capital cost of installation.



TRIED AND PROVEN PERFORMANCE

TransEvo's remarkable performance and energy saving is acknowledged by both scientific studies (e.g. University of Hannover, Germany, University of Wroclaw, Poland) and customers (e.g. RWE lignite mines in Germany and PGE in Poland). TransEvo is recognised as the most efficient, energy-saving belt on the market by customers and third parties.

APPLICATION SCOPE



Best results

- For steel belts
- For conveyors >1,000 m
- On conveyors with up to ~3% inclination



Lower efficiency

- For textile belts
- For short belts
- For steep inclination

TECHNICAL CHARACTERISTICS

AVAILABILITY

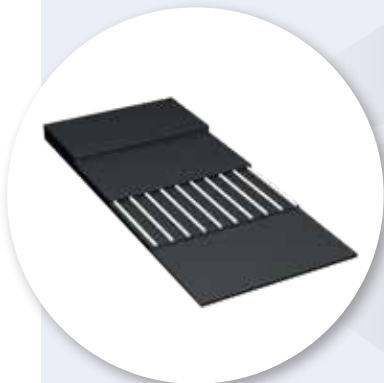
- Full Sempcord ST width range
- Full Sempcord ST tensile strength range

SPLICING

- Standard Semptrans splicing instructions

DURABILITY

- Cover durability similar to the equivalent Transdura and Transflam grades
- Aging properties similar to the equivalent Transdura and Transflam grades



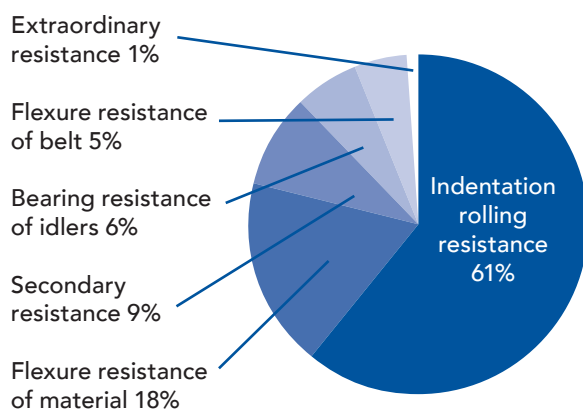
TRANSEVO™ COVER GRADES

TransEvo belts are available in a broad range of cover grades:

Cover Grades	Energy-saving	Impact resistance	Abrasion resistance	Underground usage	Applicable for	Alternative to standard grades
TransEvo Ultra	++++	+++	+++	-	Normal abrasion purposes. Highest energy savings among TransEvo family	D, Y, L, ...
TransEvo-P	+++	+++	+++	-	Pipe applications. Normal abrasion purposes	Y
TransEvo-K-P	+++	+++	+++	-	Pipe applications. Flame retardant with cover (ISO 340 and EN 12882)	K
TransEvo-V	+++	++	++	Yes	Flame retardant for underground and tunnel usage (EN 14973)	TG(V)
TransEvo-K	+++	+++	++	-	Flame retardant with cover (ISO 340 and EN 12882)	K
TransEvo-X	+++	++++	+++	-	Tough applications with cutting resistance and low abrasion requirements	X, W, ...
TransEvo-D50	+++	+++	++++	-	Highly abrasive conditions	D50



Typical split of running resistances on long horizontal conveyors of 1000 m and above



Source: Hintz, A.: Einfluss des Gurtaufbaus auf den Energieverbrauch von Gurtförderanlagen. Dissertation University of Hannover 1993

TransEvo covers focus on reducing the indentation rolling resistance – the biggest energy consumer in a conveyor installation. The result is less overall energy needed, so less cost, without compromising the belt's service life.

The TransEvo range has been extended. Initially good for open-pit lignite mines, the range now also works for sharp, lumpy and abrasive materials as well as underground use, including tunnelling, and pipe conveyors.

As well as reducing energy consumption, TransEvo-X matches the X-Cover of DIN 22131 (ISO 15236 "H" also possible) while the TransEvo-V fulfils EN 14973 and EN 12881.



HOW MUCH CAN YOU SAVE WITH TRANSEVO™?

With our Sempertrans TransEvo ROI calculation tool, we can determine an initial payback estimation based on the specific characteristics of your conveyor installation.

Contact your Sempertrans Sales Representative for your own simulation.

TRANSEVO ENERGY-SAVING EXAMPLE 1

Conveyor data

Capacity	2,500 t/h
Length	14,000 m (horizontal)
Conveying speed	5.5 m/s
Work time	24 h / 350 days

With standard DIN Y cover

Conveyor belt	1000 ST 2800 8+6 Y
Motor power	~2,450 kW

With TransEvo Ultra cover

Conveyor belt	1000 ST 2250 8+6 TransEvo Ultra
Power required	~2,050 kW

Energy savings: 3,3 million kWh per year

Cost savings: ~EUR 300,000 per year for one conveyor*

* Taking into account an energy price of EUR 0.092 per kWh.

TRANSEVO ENERGY-SAVING EXAMPLE 2

Conveyor data

Capacity	2,500 t/h
Length	1,000 m (horizontal)
Conveying speed	6.0 m/s
Work time	24 h / 350 days

With standard DIN X cover

Conveyor belt	1000 ST630 8+6 X
Motor power	~170 kW

With TransEvo-X cover

Conveyor belt	1000 ST630 8+6 TransEvo
Power required	~145 kW

Energy savings: 210,000 kWh per year

Cost savings: ~EUR 20,000 per year for one conveyor**

** Taking into account an energy price of EUR 0.08682 per kWh. Price for one kWh in December 2014 for Poland.

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