XTRA-GRIP™

DESCRIPTION:

Goodyear's XTRA-GRIP™ conveyor belting provides increased material transfer inclines of five degrees or more due to its 1/4" high Chevron ribbed pattern versus conventional smooth belting. XTRA-GRIP is available in either 2-ply 250 PIW or 3-ply 375 PIW nylon/nylon abuse resistant construction.

Markets

- Aggregate
- Baggage Handling
- Bulk Handling Terminal
- Cement
- Coal
- Foundry
- Grain
- Hard Rock
- Package Handling
- Pulp and Paper
- Sand and Gravel
- Steel Production
- Wood Products

to name a few.

Applications

- Stacker Conveyors
- Ship Unloaders
- Trash and Recycling Plants
- Wood Chips
- Bark Belts
- Grain Transfer
- Grain Storage

to name a few.

Cover Compounds

- Guardian™
- MORS
- OMEGA®
- 6740A
- ARMA®-SBR
- Stacker®
- ORS-Chemivic®
- Premarc®
- Supreme

(See pages 44-49 for more specific details.)

Tension Range

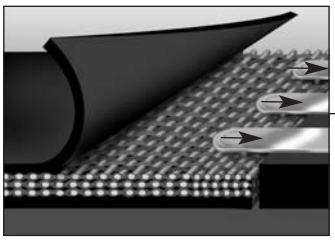
250 PIW and 375 PIW

FOR BEST RESULTS, USE GOODYEAR SPLICE MATERIALS.

Features | Benefits

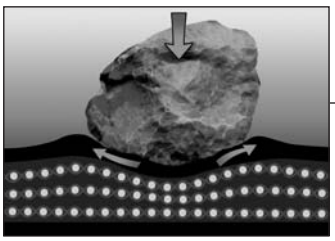
Load gripping rib pattern

The ribs of XTRA-GRIP belting are 1/4" high chevrons that increase the permissible angle of incline by 5 degrees or more. XTRA-GRIP works especially well with materials that have a high water content where slipping of reload on the belt might otherwise occur. The staggered Chevron design can be run in either direction and are an integral part of the belt.



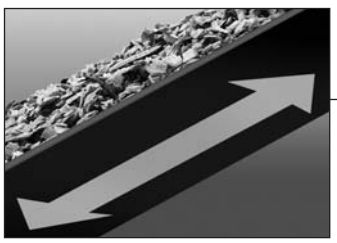
Excellent fastener holding retention

High strength nylon fill cords enhance mechanical fastener holding ability and resist fastener pull-out for more reliable performance and increased uptime.



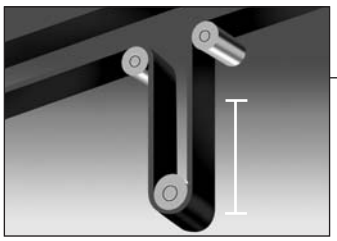
Excellent rip, tear and impact resistance

Specially designed crimped warp cords straighten on impact and then recover their original shape. This enables the fabric to absorb greater impact loads and resist tearing for long-lasting durability and lowest cost-per-ton conveyed.



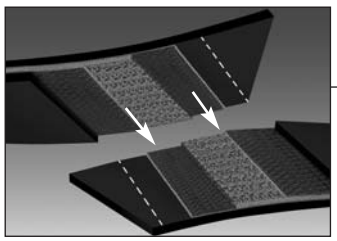
High ultimate strength

XTRA-GRIP belts withstand severe tension spikes at start-up, retain mechanical fasteners and withstand continuous flexing around pulleys. This higher ultimate strength makes a critical difference in abusive operating conditions.



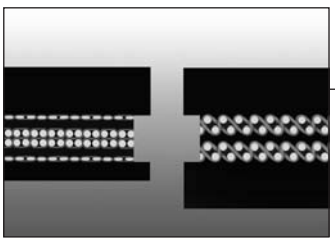
Reduced stretch

The combination of fabric design and dip process provides less elastic and permanent elongation on all specifications. This minimizes take-up concerns and reduces the number of splices at break-in. Contact your local Goodyear representative to calculate permanent and elastic elongation requirements for your specific systems.



Standard bias step splices

A quick and effective technique, step splices greatly reduce downtime and are recognized throughout the industry as the standard. The vulcanized splice in XTRA-GRIP retains 100% of belt tension rating during running conditions. *(See data table for proper step length on page 40).*



Variety of cover compounds

Protect your product with the proper compound and cover gauge for the application. Goodyear's XTRA-GRIP conveyor belting can be customized to fit your application.

XTRA-GRIP™ CONVEYOR BELT DATA - Imperial

		XTRA-GRIP 250	XTRA-GRIP 375
Number of Plies		2	3
Fabric Type*		N/N	N/N
Vulcanized & Fastener Rating (piw)		250	375
Impact Index**		1.3	1.9
Approx. Carcass Gauge (in.)		0.144	0.199
Approx. Carcass Weight (lbs/sq.ft.)		0.75	1.06
Approx 1/32" cover wt (lbs/sq.ft.)		0.19	0.19
Average Permanent Elongation (%)***		1.3	1.3
Elastic modulus (piw)		18,606	27,909
Step Length (in.)****		10	10
Recommended Fasteners	Plate	190	BR-10
	Hinge	R5	R5
	Hinge	U35A	U35

XTRA-GRIP rated belt tension can exceed 100%, with a maximum of 150%, during starting and stopping conditions. Fastener size recommendation may vary due to cover thickness, pulley diameter, and system tension. Consult Goodyear or fastener manufacturer.
**N/N =Nylon/Nylon*
***Impact index provides a relative impact absorption value on any Goodyear construction assuming that the material size, material shape, drop height, impact idlers/bed, top cover and pulley cover are the same.*
****Average permanent elongation values at 100% or rated belt tension are based on ISO 9856 test procedure. Consult Goodyear field sales or GAD for elastic & total elongation calculations.*
*****Consult Goodyear for vulcanized splice design for 900/2, 1350/3, and 1800/4 constructions.*

XTRA-GRIP™ LOAD SUPPORT (Maximum Belt Width) (in.)

	Material Weight	0-40 lbs/cu.ft.			41-80 lbs/cu.ft.			81-120 lbs/cu.ft.			81-120 lbs/cu.ft.		
	Trough Idlers	20 deg	35 deg	45 deg	20 deg	35 deg	45 deg	20 deg	35 deg	45 deg	20 deg	35 deg	45 deg
XTRA-GRIP	250/2	54	48	48	48	42	36	42	42	30	36	30	NR
XTRA-GRIP	375/3	72	60	60	60	60	48	54	54	48	48	42	36

On In-Line systems with troughing idler spacing greater than 5 ft. OR idler roll gap greater than 1/2 in., consult Goodyear.

XTRA-GRIP™ TROUGHABILITY (Minimum Belt Width) (in.) (Table based on ISO 703 Testing Procedure)

Idlers	XTRA-GRIP 250/2	XTRA-GRIP 375/3
20 degree idlers	18	24
35 degree idlers	24	30
45 degree idlers	30	36

6" narrower widths are possible if the belt is broken in for an extended period of time fully loaded. Consult Goodyear. Additional break in time is required when the belt has been stored prior to installation in ambient temperatures of less than 50 degrees Fahrenheit.

XTRA-GRIP™ MINIMUM PULLEY DIAMETERS (in.)

Specifications	XTRA-GRIP 250	XTRA-GRIP 375
Number of Plies	2	3
Over 80% Tension	16	18
60% to 80% Tension	14	16
40% to 60% Tension	12	14
Up to 40% Tension	10	12
Tails and Snubs	10	12

XTRA-GRIP™ CONVEYOR BELT DATA - Metric

		XTRA-GRIP 250	XTRA-GRIP 375
Number of Plies		2	3
Fabric Type*		N/N	N/N
Vulcanized & Fastener Rating (kN/m)		44	66
Impact Index		1.3	1.9
Approx. Carcass Gauge (mm)		3.7	5.1
Approx. Carcass Weight (kg/sq.m)		3.7	5.2
Approx 1mm cover wt (kg/sq.m)		1.2	1.2
Average Permanent Elongation (%)**		1.3	1.3
Elastic modulus (kN/m)		3,260	4,890
Step Length (mm)***		250	250
Recommended Fasteners	Plate	190	BR-10
	Hinge	R5	R5
	Hinge	U35A	U35

XTRA-GRIP rated belt tension can exceed 100%, with a maximum of 150%, during starting and stopping conditions. Fastener size recommendation may vary due to cover thickness, pulley diameter, and system tension. Consult Goodyear or fastener manufacturer.
**N/N =Nylon/Nylon*
***Average permanent elongation values at 100% or rated belt tension are based on ISO 9856 test procedure. Consult Goodyear field sales or GAD for elastic & total elongation calculations.*
****Consult Goodyear for vulcanized splice design for 900/2, 1350/3, and 1800/4 constructions.*

XTRA-GRIP™ LOAD SUPPORT (Maximum Belt Width) (mm)

	Material Weight	0-640 kg/m³			641-1280 kg/m³			1281-1920 kg/m³			Over 1920 kg/m³		
	Trough Idlers	20 deg	35 deg	45 deg	20 deg	35 deg	45 deg	20 deg	35 deg	45 deg	20 deg	35 deg	45 deg
XTRA-GRIP	250/2	1400	1200	1200	1200	1050	900	1050	1050	750	900	750	NR
XTRA-GRIP	375/3	1850	1550	1550	1550	1550	1200	1400	1400	1200	1200	1050	900

On In-Line systems with troughing idler spacing greater than 1.5 m OR idler roll gap greater than 12.7 mm, consult Goodyear.

XTRA-GRIP™ TROUGHABILITY (Minimum Belt Width) (mm) (Table based on ISO 703 Testing Procedure)

Idlers	XTRA-GRIP 250/2	XTRA-GRIP 375/3
20 degree idlers	450	600
35 degree idlers	600	750
45 degree idlers	750	900

152 mm narrower widths are possible if the belt is broken in for an extended period of time fully loaded. Consult Goodyear. Additional break in time is required when the belt has been stored prior to installation in ambient temperatures of less than 10 degrees Centigrade.

XTRA-GRIP™ MINIMUM PULLEY DIAMETERS (mm)

Specifications	XTRA-GRIP 250	XTRA-GRIP 375
Number of Plies	2	3
Over 80% Tension	400	450
60% to 80% Tension	350	400
40% to 60% Tension	300	350
Up to 40% Tension	250	300
Tails and Snubs	250	300