



**VOLTA
BELTING**
Technology

Conveying Solutions
Flat Belts - General Industry



The Next Step in Belting

Flat Belts for the General Industry

For over 50 years Volta has been manufacturing General Conveyor Belting from highest quality Thermoplastic Elastomer (TPE) material with unique homogenous characteristics. These belts are most suitable for conveying ceramics, glass, cardboard, metal parts and recycling, etc. A wide range of colors, thicknesses, hardnesses and surface textures are available. Standard Belt Width = 1524 mm (60") / 2032mm (80").



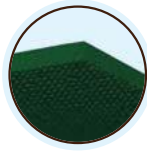
- ➔ Does not absorb industrial oils, fluids and chemicals.
- ➔ Absorbs the impact of falling products well to ensure a long belt life.
- ➔ Very low abrasion - no joints prone to wear and tear.
- ➔ Improved resistance to cuts and punctures.
- ➔ High carrying capacity with excellent grip.
- ➔ Safer product conveyance on shock-absorbing materials.
- ➔ On magnetic conveyors and separators, thinner belting means more intensity in a given magnetic field.

Homogeneous Belts									
Product & Color		Shore Hardness	Temperature Range	Coefficient of Friction on Steel (Bottom)	Thickness	Minimum Pulley Diameter		Pull Force: Pretension of 1%	
					mm	mm	Inch	kg/cm	lbs/in
FK		59D	-20°C to 75°C -5°F to 170°F	0.28	1.80	60	2 ³ / ₈	1.90	10.60
					2.50	80	3 ¹ / ₈	2.50	14
					3	88	3 ¹ / ₂	3.20	17.60
					4	105	4 ¹ / ₄	4.20	23.50
					5	150	5 ⁷ / ₈	5	28
					6.50	195	7 ¹¹ / ₁₆	6.50	36.40
FZ		95A/46D	-30°C to 60°C -20°F to 140°F	0.36	2	30	1 ³ / ₁₆	1.20	6.40
					2.50	35	1 ³ / ₈	1.50	8
					3	40	1 ⁵ / ₈	1.80	9.60
					4	60	2 ³ / ₈	2.60	13.60
					5	80	3 ¹ / ₈	3.20	16.80
					5	150	5 ⁷ / ₈	5	28.00
FL		80A	-40°C to 50°C -40°F to 120°F	0.55	2.50	17	2 ¹ / ₃₂	0.30	1.80
					3	20	3 ¹ / ₄	0.40	2.20
					4	30	1 ³ / ₁₆	0.60	3.40
					5	35	1 ³ / ₈	0.70	3.90
					8	60	2 ³ / ₈	1.20	6.80
Homogeneous Embossed Bottom Belts									
FEPZ		86A	-30°C to 50°C -20°F to 120°F	0.35	3	30	1 ³ / ₁₆	0.80	5.10
					4	40	1 ⁵ / ₈	1.10	6.30
					6	60	2 ³ / ₈	1.60	10.20
FEST		65A	-40°C to 55°C -40°F to 125°F	0.70	2	9	1 ¹ / ₃₂	0.30	1.68
					3	14	9 ¹ / ₁₆	0.45	2.52
					4	18	2 ³ / ₃₂	0.60	3.36
					5	22	7 ¹ / ₈	0.75	4.20
FEZ		95A/46D	-30°C to 60°C -20°F to 140°F	0.20	2	30	1 ³ / ₁₆	0.80	4.50
					2.50	35	1 ³ / ₈	1	5.60
					3	40	1 ⁸ / ₈	1.30	6.60
					4	60	2 ³ / ₈	1.60	9
					5	80	3 ¹ / ₈	2.10	11.80

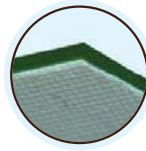
General Conveyor Belts Top & Bottom Surfaces



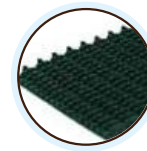
Smooth Top



Embossed Bottom



Reinforced Bottom



ITR -10
Impression Top Rough

Homogeneous Impression Top Belt								
Product & Color	Shore Hardness	Temperature Range	Coefficient of Friction on Steel (Bottom)	Thickness	Minimum Pulley Diameter		Pull Force: Pretension of 1%	
				mm	mm	Inch	kg/cm	lbs/in
FZ-ITR10	95A/46D	-30°C to 60°C -20°F to 140°F	0.36	5	80	3 ¹ / ₈	2.40	12.80
Reinforced Belts								
FRL*	80A	-40°C to 50°C -40°F to 120°F	0.20	2	10	³ / ₈	5	28
				3	30	1 ³ / ₁₆	12	67
				5	60	2 ³ / ₈	13	73
FRGZ*	95A/46D	-30°C to 60°C -20°F to 140°F	0.20	2	25	1	6	33.50
				2.50	32	1 ¹ / ₄	6.50	36
				3*	36	1 ⁷ / ₁₆	7	39
				4*	50	2	7.50	41.70
				5	65	2 ³ / ₁₆	9	50
FRG*	95A/46D	-30°C to 60°C -20°F to 140°F	0.20	2	27	1 ¹ / ₁₆	6	33.50
				3*	36	1 ³ / ₈	7	39
				4	60	2 ³ / ₈	7.50	41.70
FRG ST	65A 95A/46D	-30°C to 60°C -20°F to 140°F	0.20	3	35	1 ³ / ₈	6	33
				3.50	40	1 ⁵ / ₈	6	33
				5	60	2 ³ / ₈	7	39
FRPZ*	86A	-30°C to 50°C -20°F to 120°F	0.20	2	20	³ / ₄	5.20	29.12
				3	30	1 ³ / ₁₆	5.60	31.36
				4	40	1 ⁵ / ₈	6	33.60
				6	80	3 ¹ / ₈	6.80	38.08
				8	100	4	7.60	42.56

Note: *Available in 2032mm/80" width. Check availability before placing the order.

Tips for Splicing & Fabricating:

- ➔ Reinforced belts should be butt welded on an angle (bias). Increasing the contact zone improves belt strength and means the break in the reinforcement is not stressed across the width at one point.
- ➔ When welding guides onto reinforced belts, it is preferable to machine the reinforcement off with an end mill/router and to heat weld directly onto the homogeneous base belt.
- ➔ Volta offers a number of cleat/flight configurations including scooped and angled. Throughput assessments can be made to assist in designing elevators for given volumes of material transfer.
- ➔ One-off special fabrications are the norm with Volta material. Unlike modular belts where molds can restrict design, Volta material offers more scope for ingenuity and innovation.

The Positive Drive Concept - SuperDrive™

The additional advantage of the Positive Drive mechanism prevents any slippage or off-tracking, reducing maintenance costs dramatically. Lack of tensioning prevents elongation and allows for simple cleaning procedure and long belt life.



SuperDrive™ Belts								
Product & Color	Shore Hardness	Temperature Range	Coefficient of Friction on UHMW* (Bottom)	Thickness	Minimum Pulley Diameter**		Maximum Pull Force width	
				mm	mm	Inch	kg/cm	lbs/in
FZ-SD	95A	-30°C to 60°C -20°F to 140°F	0.30	3	80	3 ¹ / ₄	5	28
				4	120	4 ³ / ₄	6.60	37
FZD-SD	95A	-30°C to 60°C -20°F to 140°F	0.30	6	230	9	10	56
FMB BL-SD	53D/86A	-30°C to 60°C -20°F to 140°F	0.28	6	200	7 ⁷ / ₈	8	44.80





Note: All Inch sizes have been converted from metric sizes.

6mm material SuperDrive™ belts are usually used in heavy load applications and therefore we recommend using the largest Drive Pulley possible to ensure maximum engagement between the belt and Drive Pulley teeth.

UHMW* - Ultra-High Molecular Weight material. **Minimum Pulley Diameter**** - Normal Flex.

Anti Static (AS) and Electro Static Dissipative (ESD) Belts

This special belt is created from anti static (AS) or electro static dissipative (ESD) material that ensures the continuous release of electro static charge and prevents the build-up and impulsive, unwanted release of static charge.




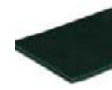



Anti Static (AS) and Electro Static Dissipative (ESD) Belts										
Product & Color		Shore Hardness	Temperature Range	Coefficient of Friction on Steel (Bottom)	Thickness	Minimum Pulley Diameter		Pull Force: Pretension of 1%		Range Ohms (Ω)/ Square
					mm	mm	Inch	kg/cm	lbs/in	
FEBL - AS		86A	-20°C to 50°C -5°F to 120°F	0.35	1.60	20	3/4	0.40	2.20	10 ⁹ - 10 ¹⁰
					2	25	1	0.48	2.74	
					2.50	30	1 3/16	0.60	3.30	
FRBL - AS		86A	-20°C to 50°C -5°F to 120°F	0.20	2	25	1	5	28	10 ⁹ - 10 ¹⁰
					4	50	2	6	33.50	
					8	100	4	7.60	42.56	
FRBL - ESD		90A	-0°C to 50°C -32°F to 120°F	0.20	2	30	1 3/16	2.50	14	10 ⁷ - 10 ⁸
					2.50	37.50	1 1/2	3.12	17.44	
FNBL-CB-ESD*		90A	-0°C to 50°C -32°F to 120°F	0.38	2.40	40	1 5/8	2.40	13.44	10 ⁷ - 10 ⁸

Note: *Belts can only be made endless with mechanical systems or finger splice. Pull force values are recommended only when using finger splice.

➔ **Warning:** Volta AS and ESD belts are not ATEX certified at this time.



Belt Coating Materials

Belt Coating Materials									
Products		GST - 4	MST - 6	GWG - 4	FEST	FSTF		FSTF - ST	FSTF - ST Strips
Illustration									
Description		Super Grip	Multi Grip	Wood Grip	High Grip	Foam**		Foam & High Grip Top	Foam & High Grip Strips
Shore Hardness		65A	65A	65A	65A	65A		65A	65A
Size (mm)	Width*	50	50	72	1524	60	150	60	60
	Thickness	4	6	3.75	2,3,4,5	4	4,6,8,10,12	4	4
Temp. Range		-40° C to 55° C / -40° F to 125° F							

Note: *Width - Maximum available width.

**Foam - Made from 65A shore material, actual hardness is lower. Check availability before placing the order.



Roller Coating Sleeves

The Roller Coating Sleeves have an abrasion resistant surface that is ideal for covering rollers where the product on the system may be damaged or marked by contact. Using VOLTA tools, the sleeves are easily mounted without lubricants or glues. Sleeves are available with a smooth or ribbed finish from 12mm O.D. to 95mm O.D.

➔ Volta Endless Making Tools



FT-Electrode Welding System

The FT Welding System provides electrode welding technology.



FBW Flat Butt Welding System

The FBW System performs a butt-weld merging belts edge to edge.



P- 100 & P-200 Narrow Butt Welding Tools

P-100 pliers for belts up to 100mm.
P-200 pliers for belts up to 200mm.

➔ Volta Hinge Lace system and Metal Lace

The Volta Lace system is supplied welded on and allows a belt to be assembled and subsequently opened and removed with ease. Volta lace is compatible with Volta G, GZ, PZ, Z, L, LG and M Family Flat Belts from 3mm to 5mm thickness. All Volta flat belt material is easy to clean without removing from conveyor and therefore we only recommend lace when absolutely necessary.

- Using Volta tools, belts can be made endless on-site, reducing downtime.
- Heat-welded fabrications. Fusing of the solid flat belt with matching material flights, sidewalls, guides, etc. result in a nearly unbreakable fabrication and superior performance.
- Volta material is ideal for forming slides or hammocks to gently support and break the fall of the product on the belt.



Volta Belts in the General Conveying Industry



FRGZ - 2
Screw conveying



FRPZ - 6
Hammocks in glass recycling



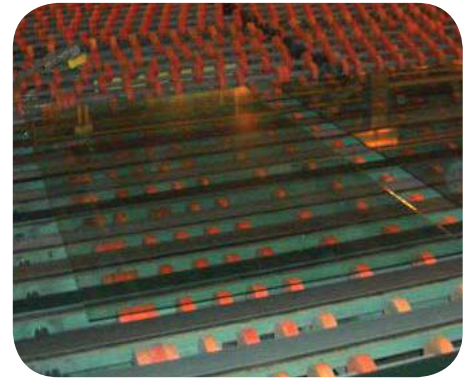
FRGZ - 4
Metal recycling



FEZ - 3.2
Industrial chemical conveyor



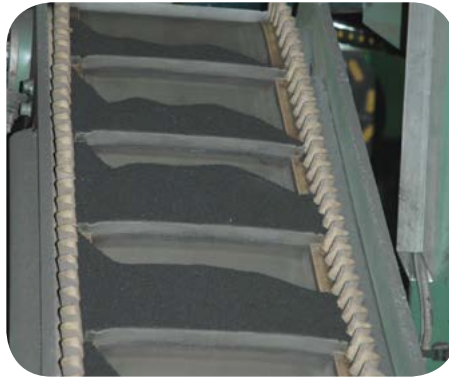
FEZ - 3.2
Nails production



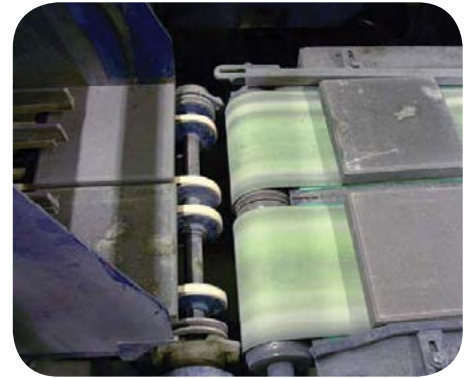
FRGZ - 5
Glass conveying



FRPZ - 6
Glass recycling



FRG - 3
Chemical powder conveying



FK - 3
Brick pre - oven conveying



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