ELLEGAARD.

VOLTA

Flat belts - general industry

FOOD

Flat Belts for the General Industry

For over 40 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").

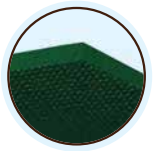
- Does not absorb industrial oils, fluids and chemicals.
- Absorbs the impact of falling products well to ensure a long belt life.
- Very low abrasion - no joints prone to wear and tear.
- Improved resistance to cuts and punctures.
- High carrying capacity with excellent grip.
- Safer product conveyance 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	1.8	60	2 3/8	1.90	10.60
				2.5	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
				6.5	195	7 1/8	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
				2.5	35	1 3/8	1.50	8
				3	40	1 5/8	1.8	9.6
				4	60	2 3/8	2.60	13.60
				5	80	3 1/8	3.20	16.80
FL	80A	-40° C to 50° C -40° F to 120° F	0.55	2.5	17	21/32	0.30	1.80
				3	20	3/4	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
FEST	65A	-40° C to 55° C -40° F to 125° F	0.70	2	9	11/32	0.30	1.68
				3	14	9/16	0.45	2.52
				4	18	23/32	0.60	3.36
				5	22	7/8	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
				2.5	35	1 3/8	1	5.60
				3	40	1 5/8	1.30	6.60
				4	60	2 3/8	1.60	9
				5	80	3 1/8	2.10	11.80

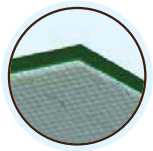
General Conveyor Belts Top & Bottom Surfaces

Smooth Top

ITR -10
Impression Top Rough



Embossed Bottom



Reinforced Bottom

Reinforced 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
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
				2.5	32	1 1/4	6.50	36
				3*	36	1 7/16	7	39
				4*	50	2	7.50	41.70
				5	65	2 9/16	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
				3.5	40	1 5/8	6	33
				5	60	2 3/8	7	39
FRLG	80A	-40° C to 50° C -40° F to 120° F	0.20	5.5	70	2 3/4	13	73
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
Reinforced Impression Top Belts								
FRL - ITR 10	80A	-40° C to 50° C -40° F to 120° F	0.20	4	30	1	3.40	19

Note: *Available in 2032mm/80" width.

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	-30C to 60C -20F to 140F	0.3	3	80	3 1/4	5	28
					4	120	4 3/4	6.6	37
FZD-SD		95A	-30C to 60C -20F to 140F	0.3	6	230	9	10	56
FMB BL-SD		53D/86A	-20C to 60C -5F to 140F	0.28	6	200	7 7/8	8	44.8

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* - Ulta-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	1.6	20	3/4	0.40	2.20	10^9 - 10^{10}
					2	25	1	0.48	2.74	
					2.5	30	1 3/16	0.60	3.30	
	FRBL - AS	86A	-20° C to 50° C -5° F to 120° F	0.20	1.6	20	0.8	4	22	10^9 - 10^{10}
					2	25	1	5	28	
					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	2.5	14	10^7 - 10^8
					2.5	37.5	1.5	3.12	17.44	

Belt Coating Materials

These materials are supplied in strips for welding onto suitable surfaces (PU timing) to give a variety of effects.

Belt Coating Materials								
Products		**GST - 4**	**MST - 6**	**FEST**	**FSTF**	**FSTF - ST**	**FSTF - ST Strips**	**GWG - 4**
Illustration								
Description		Super Grip	Multi Grip	High Grip	Foam**	Foam & High Grip Top	Foam & High Grip Strips	Wood Grip
Shore Hardness		65A	65A	65A	65A	65A	65A	65A
Size(mm)	**Width***	50	50	1524	140 / 150 / 160	60	60	72
	Thickness	4	6	2,3,4,5	14 / 6-12 / 4	4	4	3.75
Temp. Range		-40° C to 55° C / -40° F to 125° F						

Notes: **Width*** - Maximum available width. ****Foam** - Made from 65A shore material, actual hardness is lower.

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 12 mm O.D. to 95 mm O.D.

Volta Endless Making Tools

FT - Electrode Welding System

The FT Welding System provides electrode welded 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 of 2.5 to 5 mm 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.*

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Volta Belts in the General Conveying Industry

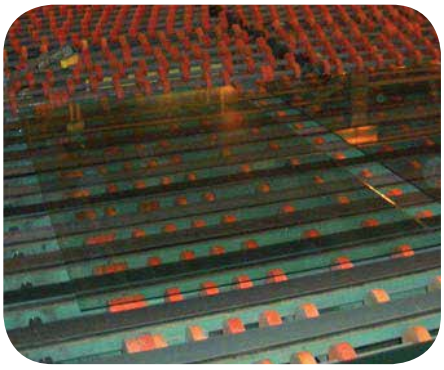
FRGZ - 2
Screw conveying

FRPZ - 6
Hammocks in glass recycling

FRGZ - 4
Metal recycling

FEZ - 3.2
Industrial chemical conveyor

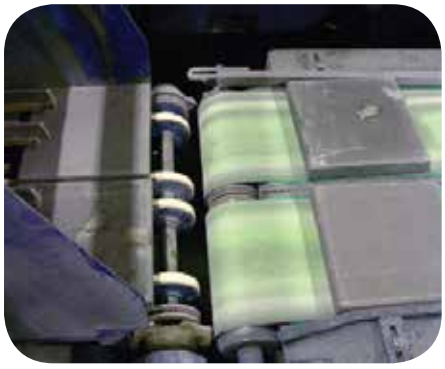
FEZ - 3.2
Nails production



FRGZ - 5
Glass conveying

FRPZ - 6
Glass recycling

FRG - 3
Chemical powder conveying



FK - 3
Brick pre - oven conveying

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Viborg Vennershåbvej 4 • 8800 Viborg
Børkop Industrivej 38 • 7080 Børkop