UsFlex® *Go tougher, not thicker!*

Toughest rip and puncture resistant belt made…period.

UsFlex belting has longitudinal rip resistance more than three times that of multiple-ply belts of equivalent rating because of our unique straight-warp construction. UsFlex provides impact resistance up to three times greater than that of conventional plied belting. This unequaled toughness means the belt will not be easily damaged in the loading and conveying of large, sharp material. As a result, UsFlex will provide the longest belt life in the harshest conveying conditions, guaranteed!

Markets & Applications:

- **Large aggregate**
- **Forest products**
- **Coal mining**
- **Hard rock mining**
- **Steel/foundries**
- **Bulk terminals**
- **Recycling**

Reasons to Count on UsFlex

- Balanced covers reduce cupping, curling and tracking problems
- Maximum belt strength and abuse resistance even with large loads
- Excellent load support combined with outstanding troughability due to lightweight, flexible design
- Carcass binder system acts as built-in breaker to resist impact, rip and puncture
- Available in single or dual unit carcass
- Superior carcass adhesion
- State-of-the-art Finger Splice Technology prolongs belt life

FENNER DUNLOP
ENGINEERED CONVEYOR SOLUTIONS

UsFlex® Specification Table - *"Imperial"*

GENERAL DATA

Carcass Style	UsFlex S2	UsFlex S3	UsFlex S4	UsFlex S5	UsFlex D5	UsFlex D6	UsFlex D8	UsFlex D10	UsFlex D12	UsFlex D15
Number of Plies	1	1	1	1	2	2	2	2	2	2
Carcass Gauge[3] (in)	.095	.139	.142	.169	.234	.270	.300	.320	.388	.439
Carcass Weight[4] (lb/in/ft)	.031	.043	.044	.058	.096	.112	.124	.137	.162	.187
Elastic Modulus (lbs/in)	25000	35000	45000	50000	58000	50000	60000	70000	85000	92000

CONVEYOR BELT SPECIFICS

Max Tension Rating[2] (PIW)	**245**	**330**	**440**	**550**	**550**	**660**	**800**	**1000**	**1250**	**1500**
Troughing/Empty[1] – Min Belt Width (in)										
20 degree idlers	16	20	24	24	24	24	30	30	30	30
35 degree idlers	20	24	30	30	30	30	36	36	36	36
45 degree idlers	24	30	36	36	36	36	42	42	42	42
Load Support[1] – Max Belt Width (in)										
20 deg idlers 0 – 40 lbs/ft^3	60	72	84	84	84	96	96	96	96	96
20 deg idlers 41 – 80 lbs/ft^3	48	66	72	72	84	84	96	96	96	96
20 deg idlers 81 – 120 lbs/ft^3	42	60	66	72	84	84	84	84	84	84
20 deg idlers over 120 lbs/ft^3	36	48	60	66	72	72	84	84	84	84
35 deg idlers 0 – 40 lbs/ft^3	48	66	72	72	84	96	96	96	96	96
35 deg idlers 41 – 80 lbs/ft^3	36	54	60	66	72	84	96	96	96	96
35 deg idlers 81 – 120 lbs/ft^3	36	48	54	60	66	72	84	84	84	84
35 deg idlers over 120 lbs/ft^3	30	42	48	54	60	72	84	84	84	84
45 deg idlers 0 – 40 lbs/ft^3	42	54	60	66	72	96	96	96	96	96
45 deg idlers 41 – 80 lbs/ft^3	36	48	54	60	72	84	96	96	96	96
45 deg idlers 81 – 120 lbs/ft^3	30	42	48	54	60	72	84	84	84	84
45 deg idlers over 120 lbs/ft^3	24	36	42	48	54	66	72	72	84	84
Minimum Pulley Diameters (in)										
81 – 100% belt rated tension	16	18	20	20	24	30	36	36	36	36
61 – 80% belt rated tension	14	16	18	18	20	24	24	30	30	30
Up to 60% belt rated tension	12	14	16	16	18	20	20	24	24	24

ELEVATOR BELT SPECIFICS

Maximum Tension Rating (PIW)										
"Grain, Wood Chip" Service (50 lbs/ft^3)	**195**	**280**	**370**	**440**	**440**	**550**	**690**	**870**	**1060**	**1150**
"Industrial" Service (100 lbs/ft^3)	**175**	**250**	**330**	**400**	**400**	**480**	**620**	**775**	**940**	**1050**
Minimum Pulley Diameters (in)										
81 – 100% belt rated tension	16	18	20	20	24	30	36	36	36	36
61 – 80% belt rated tension	14	16	18	18	20	24	24	30	30	30
Up to 60% belt rated tension	12	14	16	16	18	20	20	24	24	24
Maximum Bucket Projection (in)										
"Centrifugal" Elevators	8	10	10	10	12	14	15	16	17	18
"Continuous" Elevators	7	9	10	12	13	15	16	18	20	22

1 Troughability and Load Support values can be influenced by certain cover gauge and compound combinations used. When in doubt, please contact your FDA representative for selection guidance.

2 UsFlex tension ratings reflect a minimum 10:1 safety factor through the 660 PIW offering, and an 8:1 minimum safety factor for the remaining higher tension offerings. With the appropriate fastener selection and installation, 4:1 minimum mechanical fastener safety factors can be achieved.

3 Add the appropriate cover gauge to this carcass gauge to obtain the approximate overall belt thickness.

4 Add the appropriate cover weight to this carcass weight to obtain the appropriate overall belt weight.

UsFlex Specification Table - *"Metric"*

FENNER DUNLOP
ENGINEERED CONVEYOR SOLUTIONS

GENERAL DATA

Carcass Style	UsFlex S2	UsFlex S3	UsFlex S4	UsFlex S5	UsFlex D5	UsFlex D6	UsFlex D8	UsFlex D10	UsFlex D12	UsFlex D15
Number of Plies	1	1	1	1	2	2	2	2	2	2
Carcass Gauge[3] (mm)	2.4	3.5	3.6	4.3	6.0	6.9	7.6	8.1	9.9	11.2
Carcass Weight[4] (kg/m^2)	1.8	2.5	2.6	3.4	5.6	6.6	7.3	8.0	9.5	10.9
Elastic Modulus (N/mm)	4375	6125	7875	8750	10125	8750	10500	12250	14875	16125

CONVEYOR BELT SPECIFICS

Max Tension Rating[2] (N/mm)	**43**	**58**	**77**	**97**	**97**	**116**	**140**	**175**	**219**	**263**
Troughing/Empty[1] – Min Belt Width (mm)										
20 degree idlers	400	500	600	600	600	600	750	750	750	750
35 degree idlers	500	600	750	750	750	750	900	900	900	900
45 degree idlers	600	750	900	900	900	900	1050	1050	1050	1050
Load Support[1] – Max Belt Width (mm)										
20 deg idlers 0 – 640 kg/m^3	1500	1800	2150	2150	2150	2450	2450	2450	2450	2450
20 deg idlers 641 -1280 kg/m^3	1200	1700	1800	1800	2150	2150	2450	2450	2450	2450
20 deg idlers 1281 -1920 kg/m^3	1050	1500	1700	1800	2150	2150	2150	2150	2150	2150
20 deg idlers over 1920 kg/m^3	900	1200	1500	1700	1800	1800	2150	2150	2150	2150
35 deg idlers 0 – 640 kg/m^3	1200	1700	1800	1800	2150	2450	2450	2450	2450	2450
35 deg idlers 641 -1280 kg/m^3	900	1400	1500	1700	1800	2150	2450	2450	2450	2450
35 deg idlers 1281 -1920 kg/m^3	900	1200	1400	1500	1700	1800	2150	2150	2150	2150
35 deg idlers over 1920 kg/m^3	750	1050	1200	1400	1500	1800	2150	2150	2150	2150
45 deg idlers 0 – 640 kg/m^3	1050	1400	1500	1700	1800	2450	2450	2450	2450	2450
45 deg idlers 641 -1280 kg/m^3	900	1200	1400	1500	1800	2150	2450	2450	2450	2450
45 deg idlers 1281 -1920 kg/m^3	750	1050	1200	1400	1500	1800	2150	2150	2150	2150
45 deg idlers over 1920 kg/m^3	600	900	1050	1200	1400	1700	1800	1800	2150	2150
Minimum Pulley Diameters (mm)										
81 – 100% belt rated tension	400	450	500	500	600	750	900	900	900	900
61 – 80% belt rated tension	350	400	450	450	500	600	600	750	750	750
Up to 60% belt rated tension	300	350	400	400	450	500	500	600	600	600

ELEVATOR BELT SPECIFICS

Maximum Tension Rating (N/mm)										
"Grain, Wood Chip" Service (800 kg/m^3)	**34**	**49**	**65**	**77**	**77**	**96**	**121**	**152**	**186**	**201**
"Industrial" Service (1600 kg/m^3)	**175**	**250**	**330**	**400**	**400**	**480**	**620**	**775**	**940**	**1050**
Minimum Pulley Diameters (mm)										
81 – 100% belt rated tension	400	450	500	500	600	750	900	900	900	900
61 – 80% belt rated tension	350	400	450	450	500	600	600	750	750	750
Up to 60% belt rated tension	300	350	400	400	450	500	500	600	600	600
Maximum Bucket Projection (mm)										
"Centrifugal" Elevators	200	250	250	250	300	350	375	400	425	450
"Continuous" Elevators	175	230	250	300	325	375	400	450	500	550

1 *Troughability and Load Support values can be influenced by certain cover gauge and compound combinations used. When in doubt, please contact your FD representative for selection guidance.*

2 *UsFlex tensions reflect a minimum 10:1 safety factor through the116 N/mm rated offerings, and an 8:1 minimum safety factor for the remaining higher tension offerings. With the appropriate fastener selection and installation, 4:1 minimum mechanical fastener safety factors can be achieved.*

3 *Add the appropriate cover gauge to this carcass gauge to obtain the approximate overall belt thickness.*

4 *Add the appropriate cover weight to this carcass weight to obtain the appropriate overall belt weight.*