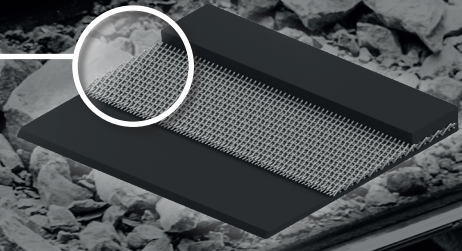


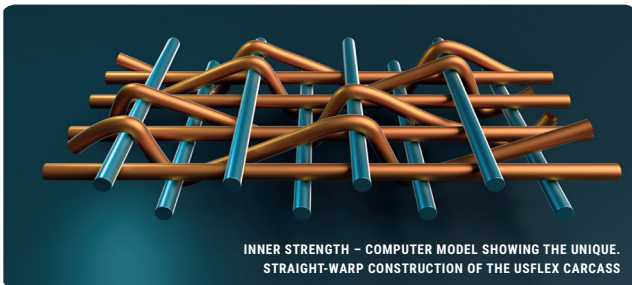
DUNLOP USFLEX

HIGH IMPACT, TEAR AND RIP RESISTANT BELTING



THE ULTIMATE SOLUTION

In some applications, especially primary and secondary crushers, even the strongest and heaviest conventional belts can be ripped or torn by large lumps of heavy, sharp objects, either falling from height or becoming trapped. Belts can often be destroyed within a matter of a weeks or months. The Dunlop solution to this problem is UsFlex, which has longitudinal rip resistance more than five times that of multi-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 unequalled 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!



BELT CHARACTERISTICS

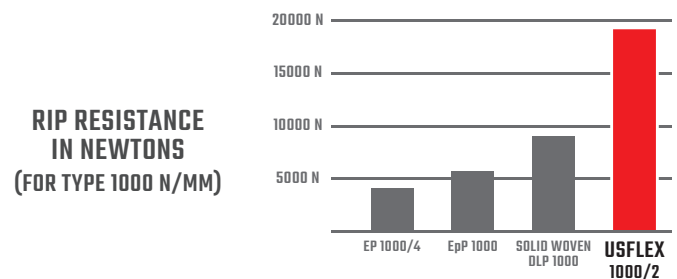
UsFlex owes its outstanding impact and tear resistant characteristics to an innovative woven straight-warp carcass. This consists of heavy strands of polyester running lengthwise and heavy nylon strands running crosswise held in position by a strong yarn. The strands are completely straight in both directions and not interlocked as in a conventional belt carcass. This allows the weft to float free from the warp, thereby minimising the peak point of impact because the energy is absorbed over a larger area, providing maximum protection to the carcass.



- EXCEPTIONAL WEAR RESISTANCE
- OUTSTANDING IMPACT RESISTANCE
- UNRIVALLED TEAR STRENGTH

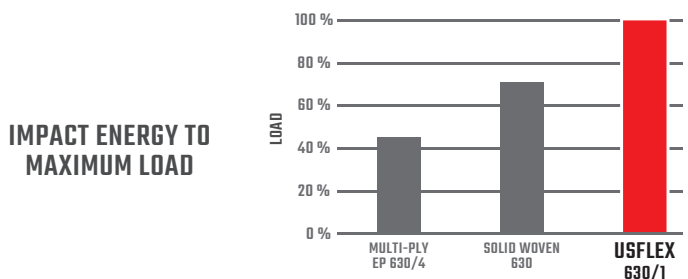
RIP RESISTANCE

Rip resistance is over five times that of conventional multi-ply belts with a similar tensile strength. The rip resistance is also far superior to Solid Woven and EpP constructions.



IMPACT RESISTANCE

Compared to conventional multi-ply and solid woven belting, the impact resistance of UsFlex is proven to be significantly superior. For example, a single-ply UsFlex type 630/1 has the impact absorbing qualities of a 4-ply EP belt type 1600/4 or an EpP 1250/2. The chart shows the results of impact tests on 630 rated UsFlex, Solid woven and multiply belting.



TEAR RESISTANCE TESTING

The tear resistance of UsFlex, measured according to the international EN ISO 505 standard, also significantly exceeds that of conventional multiply belts with a comparable tensile strength. Tests for rip and tear resistance are only made on the actual belt carcass so the top and bottom covers are always removed. This ensures that the thickness and quality of the cover does not influence the accuracy and consistency of the tests.



SUPER-TOUGH 'LONG LIFE' COVER GRADES

To provide optimum carcass protection, Dunlop RS covers are fitted as standard because of its excellent resistance to cutting combined with outstanding resistance to abrasion. Dunlop RS significantly exceeds the highest abrasion standards for both DIN W and the equivalent ISO 'D' standard. Other qualities, such as oil, fire and heat resistant covers are available. All Dunlop cover qualities are anti-static according to EN ISO 284 and are extensively ozone tested in compliance with EN ISO 1431 ozone resistance (50 ppm, strain 20%, 96 hours no cracking) and resistant to the damaging effects of ultra-violet in order to avoid premature failure due to cracking of the belt surface. All Dunlop cover qualities perform well beyond the minimum requirements of the international standards mentioned in the table below and comply to REACH regulations.



TECHNICAL INFORMATION - THE USFLEX PROGRAMME

Dunlop supplies single ply UsFlex and 2 ply UsFlex carcasses with a wide range of top quality covers.

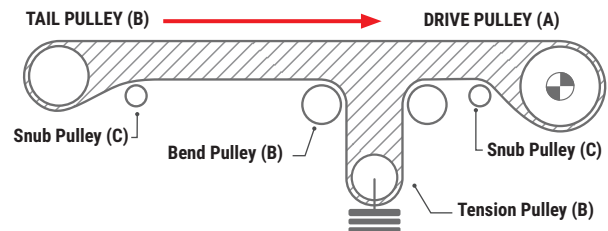
Belt type	Carcass thickness [mm]	Carcass weight [kg/m ²]	Pulley diameters *			Min. cover thickness	Min. width ** [mm]	Max. belt width [mm] for satisfactory load support with material density of t/m ³ **			
			A [mm]	B [mm]	C [mm]			< 0.75	0.75 - 1.5	1.5 - 2.5	2.5 - 3.2
Standard (stock) UsFlex belt type specifications.											
UF 400/1	2.5	2.7	315	250	200	4 + 2.5	650	1600	1400	1200	1000
UF 500/1	3.4	3.9	400	315	250	6 + 3	800	2000	1800	1600	1400
UF 630/1	3.5	4.0	400	315	250	6 + 3	800	2200	2000	1800	1600
UF 800/1	3.9	4.5	500	400	315	6 + 3	800	2200	2200	2000	1800
UF 1000/2	6.3	7.0	630	500	400	8 + 3	1000	2200	2200	2200	2200
UF 1250/2	6.8	7.7	800	630	500	8 + 3	1000	2200	2200	2200	2200
UF 1600/2	8.1	9.1	1000	800	630	8 + 3	1200	2200	2200	2200	2200

* Diameter for belt-loads from 60% up to 100%. For lower loads a smaller diameter can also be suitable.

** The load support of a belt is a factor of the belt width, belt strength and bulk material density. The table indicates the limits for correct load support, based on three idlers of the same length set at 30°.

1 TO DETERMINE THE TOTAL BELT THICKNESS
Add the sum of the covers to the carcass thickness.

2 TO DETERMINE THE BELT WEIGHT PER M²
(EXCLUDING FIRE RESISTANT BELTS FOR WHICH OTHER WEIGHTS APPLY)
Multiply the sum of the covers by 1.15 and add the result to the carcass weight.



All data and recommendations in this leaflet have been supplied to the best of our knowledge, as accurately as possible and updated to reflect the most recent technological developments. Some products may have been changed or rendered obsolete in the light of more recent technological developments. We cannot accept any responsibility for recommendations based solely on this document.