A NEW, ECONOMICAL SOLUTION TO EXPENSIVE PROBLEMS

We solved the problem of rapid wear caused by abrasion long ago. Our belts are well-recognised as being the longest lasting belts on the market. But the reality is that the vast majority of conveyor belts (in fact up to 80%) have to be prematurely replaced due to accidental damage long before they are worn out. Using low grade, ‘low priced’ imports as ‘sacrificial’ belts invariably proves to be a false economy.

But even the strongest, heaviest belts can be ripped, torn or punctured by heavy, sharp materials or foreign objects, either falling from height or becoming trapped. Belts can often be destroyed within a matter of weeks or months. The Dunlop solution to this age-old dilemma is a new and unique belt design – Dunlop Ultra X.

Ultra X is a super strength abrasion resistant breaker weft construction single-ply belt that is exclusively made by Dunlop Conveyor Belting including the patented super-tough fabric, which is made in our in-house fabric weaving facility.

ADVANTAGES OF ULTRA X COMPARED TO TYPICAL 3-PLY BELTING

- More than 3 times greater longitudinal rip resistance
- Up to 5 times better tear resistance
- Far superior impact resistance
- Up to 90% tensile splice strength (using finger splice method)
- Excellent mechanical fastener retention
- Greater flexibility – can be used on smaller than usual pulleys

Ultra X owes its outstanding strength to a unique, specially woven carcass. This construction design uses crimped warp polyester yarns to provide high strength and low stretch combined with strong ‘binder’ and ‘filler’ yarns to create strength and stability under load to give exceptional rip, tear and impact resistance.

ULTRA X – MAKING THE RIGHT SELECTION

Ultra X1 is designed to replace 250/2, 315/2 and 400/3 abrasion resistant multi-ply belts

Ultra X3 is designed to replace 500/3, 500/4, 630/3 and 630/4 abrasion resistant multi-ply belts

RIP & TEAR RESISTANCE TESTING

The tear resistance of Ultra X measured according to the international EN ISO 505 standard significantly exceeds that of conventional multiply belts. 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.

SPlice STRENGTH ADVANTAGES

Ultra X is best joined using the finger splice method. This creates the strongest and most reliable joint possible by retaining up to 90% of tensile strength. This is because a step splice will always create a proportional ‘loss’ of tensile strength that is the equivalent of one ply. For example:

<table>
<thead>
<tr>
<th>No. of plies</th>
<th>Maximum % tensile strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>90%</td>
</tr>
<tr>
<td>2</td>
<td>50%</td>
</tr>
<tr>
<td>3</td>
<td>67%</td>
</tr>
<tr>
<td>4</td>
<td>75%</td>
</tr>
<tr>
<td>5</td>
<td>80%</td>
</tr>
</tbody>
</table>
SUPER-TOUGH ‘LONG LIFE’ ANTI-ABRASION COVERS

In addition to their outstanding rip, tear, puncture and impact resistance, Ultra X belts also provide the extended wear-life that our customers have come to expect from all Dunlop "Made in Holland" conveyor belts.

Ultra X belts are produced with Dunlop AA anti-abrasion covers as standard. This ensures excellent resistance against the cutting and wearing caused by aggregate materials, with a resistance to abrasion that outperforms typical DIN Y requirements (average loss of less than 150mm²) by as much as 20%. And as with all Dunlop cover qualities, Dunlop AA is extensively tested in compliance with EN ISO 1431 for ozone resistance (50 ppmm, strain 20%, 96 hours no cracking) and resistance to the damaging effects of UV light.

These essential design characteristics are vital in helping to avoid premature replacement of the belt due to cracking of the belt surface. All Dunlop cover qualities are produced in compliance with REACH (Registration, Evaluation and Authorisation of Chemical substances) regulation EC 1907/2006 and are anti-static according to EN ISO 284.

TECHNICAL INFORMATION

<table>
<thead>
<tr>
<th>Belt type</th>
<th>Carcass thickness [mm]</th>
<th>Carcass weight [kg/m²]</th>
<th>Pulley diameters</th>
<th>Min. cover thickness</th>
<th>Min. width [mm]</th>
<th>Max. belt width [mm] for satisfactory load support with material density of 1.15 *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ultra X1</td>
<td>1.8</td>
<td>2.1</td>
<td>250</td>
<td>200</td>
<td>160</td>
<td>4 + 2 500 1200 1000 800 650</td>
</tr>
<tr>
<td>Ultra X3</td>
<td>2.9</td>
<td>3.4</td>
<td>400</td>
<td>315</td>
<td>250</td>
<td>6 + 2 650 1600 1400 1200 1000</td>
</tr>
</tbody>
</table>

* 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 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
Multiply the sum of the covers by 1.15 and add the result to the carcass weight.