FABRIC CARCASE

- DELTA or DELTA CFW
  Plied belts with rubber covers

- DELTA selftrack
  Plied belts with 1 ply stiffened and rubber covers

- DX-FLEX or DX-FLEX RT
  Polyester straight-warp conveyor belt with rubber covers

- DX-FLEXAMID
  Aramid straight-warp conveyor belt with rubber covers

- DYNA
  Solid-woven belts with rubber covers

- DYNA-P
  Solid-woven belts with PVC covers

STEEL CARCASE

- DX/ST
  Steel cord belts with rubber cover

- DX MAT
  Steel straight-warp belts with rubber cover

---

YOU CAN RELY ON HIGH-PERFORMANCE LOGISTICS & SERVICES

With a main logistics platform in Lille (France), offices and storage facilities in Poland, U.S.A and Australia we can provide our clients with:

- A wide range of stock belting specifications
- Cutting services to customise belts width and length
- Pre-drilling of elevator belts on request
- Buckets for elevator belts together with related fastening and installation equipment (eg: bolts, clips…)
- A “one stop shop” for conveyor belt related products such as splice kits, glues, mechanical fasteners, idlers, loading stations, belt cleaners, vulcanising presses...
- Short delivery periods
- Most importantly, high quality technical service and support at all times.

DEPREUX is part of the COBRA GROUP.

For further information on the COBRA Group activities please contact your local COBRA office:

CONVEYOR OR ELEVATOR BELTS FOR THE TRANSPORT OF ABRASIVE MATERIALS OR WITH IMPACT LOADING IN AMBIENT ENVIRONMENT

COBRA America 8 Boswell Drive - Bristol, TN37620

www.cobraamerica.com

Tél. +1 423 968 9700 - Fax : +1 423 968 9709
Conveyor or elevator belts for the transport of abrasive materials or with impact loading in ambient environment

The main feature of DEPREUX is to be able to offer for different applications the best technical and economical solution, taking into account the targeted life expectancy, the risks of hazards, the maintenance practices, and the initial investment cost.

For the short center conveyor systems, DEPREUX offers alternative options to the standard DELTA plied belts to accommodate with the possible heavy impacts or risks of tearing of not carcase:
- add textile or steel breakers to the plied belt
- a straight-warp DX-FLEX construction
- a solid-woven DYNA construction with rubber covers or with PVC covers for very special applications
- a steel carcase construction: steel-cord DX/ST or a steel matrix DX-MAT

For the long distance conveyor systems, DEPREUX has a wide variety of solutions, depending on the system configuration:
- the standard DELTA plied belt or DELTA CFW
- the polyester straight-warp DX-FLEX belt or DX-FLEX RT
- the thin and light aramid straight-warp belt
- the solid-woven DYNA belt
- the steel-cord DX/ST belt
DEPREUX offers 8 types of textile or steel conveyor belts for the transport of bulk or other materials.

Each belt is made to fit as closely as possible with the conveyor system parameters, the nature of the material to be transported and the targeted belt life expectancy.

The choice of the type of belt cover is largely influenced by the physical and properties of the material to be transported: its granularity, its level of humidity, its abrasion capabilities. Here are some examples of different types of material:

Highly abrasive material: clinker, iron ore, pyrite, metallurgic coke, metallurgic lignite, magnetite, quartz, lignite, superphosphate, glass powder.

Moderately abrasive material: anthracite, coal, ash, bauxite, potash, gravel, aluminium, concrete, sand.

Heavy or sharp material: To transport this type of material, you need a belt with a very sturdy structure. This is the case in, for example: iron, andesite, schist, nyolythe, comblanchien, and all types of rock with a granularity of higher than 100 mm after being broken down.

PRODUCT RANGE

Textile carcase belts

DELTA is a conventional ply belt, made up of textile layers bound together by a thin layer of rubber and two covers.

DELTA SELFFRACK is a DELTA with 1 additional stiffened ply this belt is used to ensure proper centering of the troughed belt to avoid possible tracking issues.

DX-FLEX is a textile belt with a carcase composed of polyester warp protected on both sides by a polyamide weft.

DX-FLEX has excellent properties of resistance to tearing and resistance to heavy impacts.

DX-FLEXAMID is a DX-FLEX where the polyester warp is replaced by aramid.

DYNA is a solid-woven belt with rubber covers. Its main characteristics are high life expectancy and high resistance to impacts and potential incidents.

DYNA-P is a variation of a DYNA, using PVC covers instead of rubber. It is used in very special cases such as the transport of metallic parts.

Steel carcase belts

DX-ST is a belt composed of steel cables placed at a constant pitch across the width of the belt (on the drawing, DX-ST with steel breaker in the top cover)

DX-MAT is a DX FLEX where the polyester warp and the polyamide weft are replaced by steel cord.
DELTA or DELTA CFW - Plied belts with rubber covers

**Application**
Transportation of bulk or other material in various mining and industrial sectors, such as:
- quarries,
- steel,
- paper and wood,
- mines,
- cement industry,
- glass,
- power plants,
- ports,
- any standard use.

**Tensile strength**
250 N/mm to 2000 N/mm - using 2 to 5 plies.

**Width and Length**
Standard 1600 mm maximum. We can supply wider belts if required. Tolerance +/- 1%. Standard 200 m rolls. 400 m rolls are also possible, please contact us.

**Belt structure**
The DELTA or DELTA CFW belt textile carcass is made up of layers of fabrics, from 2 to 4 (or more) plies. Each of these is separated by a rubber layer. This “sandwich” structure enables the belt to absorb shocks. The upper and lower fabrics of the belt are then covered with a final rubber cover.

**Main mechanical properties:**
- **Belt stretch**
  - At 10% of belt nominal tensile strength: 1.5% max. Permanent stretch:around 0.7% and elastic stretch: around 0.5% for standard carcass
- **Adhesion**
  - The fabrics are dipped with RFL solution. The RFL and rubber composition is designed to ensure maximum adhesion between the plies. This needs to be adhesive high enough to ensure a longlife expectancy, but not so adhesive that it would hamper the operation of splicing the belt. Adhesion: > 4N/mm.

**Belt joining**
DELTA belts can be joined by any of the following methods:
- the “hot” vulcanized method, using DEPREUX or other jointing materials and a field press,
- the “cold” method: using special glues,
- with mechanical fasteners. In this case, DEPREUX can supply the required belt with fasteners ready for use at each end.

Please note that a small increase in belt length is required to make the splice. Also, in the case of “hot” jointing, the splicing materials used have an effective shelf life of less than 6 months and should not be stored at high temperatures.

The splicing procedure is described in detail in a separate document available on request.

**Description of product**
DELTA EP 400/3 - 1000 - 4 + 2 Y
DELTA : Plied rubber conveyor belt
EP :   Warp polyester E - Weft polyamide P
400 :   Tensile strength in N/mm
3 :   Number of plies
1000 :   Width in mm
4 + 2 :   Upper and lower covers thickness in mm
Y :   Cover type

**Pulley diameter**
Recommendation for pulley diameters see table on page 15.

**DELTA+**
The standard DELTA belts have an interlayer thickness of 0,8mm.
It is possible to increase the interlayer thickness to 1,5mm. The belt is then called DELTA +
**Aramid Breaker**

The aramid breaker is composed of polyester in the warp, and aramid in the weft; with the aramid having by construction an elongation at break over 6% to cater with the required transverse flexibility.

Another interesting feature of this breaker is its flame-resistance and its resistance to very high temperatures. So it could be interesting for some special conveyors in foundries and steel industries.

In standard, we use aramid breaker FS220.

---

**Fabric Breaker**

- Protect from impact: EP125 and EP160

**Description of product**

DELTA selftrack - 400/3+1 - 1200 – 6+2 – Y

DELTA : Plied rubber conveyor belt
SELFTRACK : 1 additional stiffened ply
400 : Tensile strength in N/mm
3+1 : 3 EP plies + 1 stiffened ply
1400 : Belt width in mm
6+2 : Upper and lower covers thickness in mm
Y : Cover type

**Pulley diameter**

Recommendation for pulley diameters see table on page 15.

---

**BREAKER OPTION** (textile breaker, steel breaker or aramid breaker)

**Application**

All conveyor belts Delta and DX-ST can be equipped with the option (if the thickness of the cover is sufficient) of a fabric, steel or aramid breaker ply whose function is to protect the textile fabric of the carcass from ripping or impact. It can also add a breaker (less common) for DX-FLEX belts, or DXFLEXAMID DX or DYNA. The breaker ply may be inserted in the top cover (1 or 2 breakers) or in both covers if double protection is required. In addition it may be either included in the cover thickness or more of the cover.

Corresponding configurations are called respectively:
- **BRK1+0**: 1 steel, fabric or aramid breaker, which is always on the top cover.
- **BRK1+1**: 1 steel, fabric or aramid breaker in the top cover and 1 steel, fabric or aramid breaker in the bottom cover.
- **BRK2+0**: 2 steel, fabric or aramid breakers in the top cover.

These belts are utilised in applications where resistance to impact is required and there is a risk of «ripping» due to the character of the material being carried or the possible presence of undesirable sharp objects.

---

**Steel Breaker**

The steel breaker ply has ample capacity to resist tearing. The ply is constructed of steel cables resistant to cutting and tied together by polyamide wires. The resistance of the cable and the spacing of the cables vary according to the resistance required. The steel cables are orientated in the weft direction of the belt.

The steel breaker is denominated for its ultimate tensile strength at the break, in N/mm; in the direction of the steel cables, which relates to the transverse direction of the belt. We offer the breaker plies in grades 125, 160, 200, 250, 315, 400. BS - 125 is stated to be that the resistance to break in cable direction (it relates to the direction of the weft of the belt) as better than 125 N/mm.

Technical parameters in table on page 11.

---

**Fabric Breaker**

- Protect from impact: EP125 and EP160

**Aramid Breaker**

The aramid breaker is composed of polyester in the warp, and aramid in the weft, with the aramid having by construction an elongation at break over 6% to cater with the required transverse flexibility.

An other interesting feature of this breaker is its flame-resistance and its resistance to very high temperatures. So it could be interesting for some special conveyors in foundries and steel industries.

In standard, we use aramid breaker FS220.

---

**Description of product**

DELTA EP 400/3 - 1400 – 6+4 - BRK2+0 S125 - B

DELTA : Plied rubber conveyor belt
EP : Warp polyester E - Weft polyamide P
400 : Tensile strength in N/mm
3 : Number of plies
1400 : Width in mm
6+4 : Upper and lower covers thickness in mm
BRK2+0 : 2 breakers in the top cover
S : Steel breaker (T for fabric breaker D for aramid breaker)
125 : Breaker Tensile strength in N/mm
B : Cover type
**DX-FLEX - Textile straight-warp conveyor belt**

**Application**
The DX-FLEX belt has excellent properties of resistance to tearing and resistance to heavy impacts. Because the carcass is thin, DX FLEX can also be used with smaller pulley diameters than textile plied or steel-cord belts. Ability of DX-FLEX to trough is much better than a plied conveyor belt. DX-FLEX can also be joined with mechanical fasteners. DX-FLEX is therefore utilised on heavy duty conveyors where resistance to the effects of heavy impacts and resistance to tearing are important characteristics, typically seen in quarrying, open cast mining and steel industries... or in applications where heavy-duty and yet narrow belts are required, such as in tunnelling.

**Construction**
DX-FLEX is a textile belt «straight- warp» which means with a carcass composed of one or two plies, each ply is with straight warp, protected on both top and bottom sides by weft lines in textile as shown in the drawing below cons. The straight warp is composed of thick twisted (textile cables) in polyester. This warp is inserted between two planes of weft textile made of thick twisted in polyamide. The warp and the weft are connected by a small fine wire which ensures the maintenance of textile. The carcass frame thus constructed is adhered RFL and may be coated of different types of rubber cover, anti-abrasive (X, Y, SH, etc...) and other.

- For a givenply, for average tensile strength greater than 800 N/mm, it is necessary to have two levels of warp, and therefore three levels of weft protecting the warp and the binding of the assembly.
- For high resistance, it is preferable to use 2 plies straight-warp, separated by an interply in rubber to facilitate splicing.
- To increase fastening resistance, tear and impact, the DX-FLEX belt can be offered in a version with carcass reinforced in weft: DX-FLEX RT

**Tensile strength**

<table>
<thead>
<tr>
<th>Ply</th>
<th>Tensile Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>250 N/mm</td>
</tr>
<tr>
<td>2</td>
<td>1800 N/mm</td>
</tr>
</tbody>
</table>

**Belt joining**
DX-FLEX or DX-FLEX RT conveyor belts are normally jointed by hot vulcanising (ref. to DEPREUX splicing procedure). It is also possible to mechanically fasten DX-FLEX belts but you should consult with our technical representative for the appropriate type of fastener.

**Belt structure**
Cover characteristics: see table on page 14. Thicknesses and weights for different specifications, please contact us.

**Description of product**

<table>
<thead>
<tr>
<th>DX-FLEX - 1600 / 2 - 1200 6 + 3 - X</th>
</tr>
</thead>
<tbody>
<tr>
<td>DX-FLEX: Conveyor Belt with straight-warp</td>
</tr>
<tr>
<td>1600: Tensile strength at break of the belt in N/mm; 1600 N/mm</td>
</tr>
<tr>
<td>2: 2 plies of straight-warp fabric, each made of an 800 N/mm tensile strength fabric</td>
</tr>
<tr>
<td>1200: Conveyor belt width in mm</td>
</tr>
<tr>
<td>6+3: Top and bottom cover thickness in mm</td>
</tr>
<tr>
<td>X: Cover type</td>
</tr>
</tbody>
</table>

**Pulley diameter**
Recommendation for pulley diameters see table on page 15. DX-FLEX belt can operate with pulley diameters smaller than DELTA belt.
Application
The main feature of this belt is that it is the lightest and the thinnest between all textile and steel options; thanks to the properties of the aramid yarn which has 3 times more strength (or tenacity) than a polyester yarn for the same weight, and roughly three time less elongation. Compared to steel construction, it is naturally much lighter, and its elongation is in the same order of magnitude as steel.

The aramid yarn is used in the warp and generally polyamide yarn are used in the weft.

If a great concentration of nylon yarns are used, compared to a steel-cord belt, the belt will have a much greater resistance to tearing; and a temporary jointing with mechanical fasteners could be used.

Construction
DX-FLEXAMID belt is composed of a «straight-warp» carcass, formed with a layer of aramid straight chain fibre yarn, with two layers in the weft direction, upper and lower polyamide textile fibre yarn. The yarn of the warp and weft are connected with a bonding polyamide yarn to ensure a strong construction.

Tensile strength
Up to 4000 N/mm in 1 single ply

Belt structure
Cover characteristics: see table on page 14.
Thicknesses and weights for different specifications, please contact us.

Description of product
DX-FLEXAMID - 1600/1 - 1400 – 6+3 – X

DX-FLEXAMID : Conveyor Belt with aramid straight-warp
1600 : Tensile strength at break of the belt in N/mm; 1600 N/mm
1 : 1 ply of straight-warp aramid
1600 : Conveyor belt width in mm
6+3 : Top and bottom cover thickness in mm
X : Cover type

Pulley diameter
Recommendation for pulley diameters see table on page 15.
DYNA - Solid-woven belts with rubber covers

Application
1) DYNA belts are used when a long service life is sought and/or which are characterised by severe operating conditions such as in short centre or high speed systems, the presence of large rocks, a risk of impact damage, or longitudinal tearing or edge wear.

2) DYNA belts are also used for long center distances or when the system is on a steep slope. In these circumstances a DYNA belt works better than conventional ply or steel cord belts, because of its high mechanical and corrosion resistance, its generally lower power requirement, plus the fact that it is easy to install and maintain, mainly because of its high fastener holding.

3) And finally, DYNA belts are used for bucket elevators, because of the high bolt holding strength of their structure.

Tensile strength
315 N/mm to 3150 N/mm.

Width, Length
Standard: up to 1600 mm maximum. Larger widths can be supplied. Tolerance +/- 1 %.
Standard length: 200 m. Can supply belts of up to 400 m long. Tolerance -0, +2 %.

Belt structure
The DYNA belts are made of a textile «solid-woven» carcase, impregnated with a special PVC. The carcase is then protected with special anti-abrasion rubber covers.

Cover characteristics: see table on page 14.
Thicknesses and weights for different specifications, please contact us.

Main mechanical properties:
- Belt stretch
- Fasteners
- Mechanical resistance

A major advantage over ply belts is that DYNA belts need smaller drum diameters. The advantage over steel-cord belts is that DYNA belts usually need less power to function.

Advantages for the overall system
- Belt stretch
- Fasteners
- Mechanical resistance

Main mechanical properties: The «solid-woven» textile is made of polyester (E) yarns in the warp direction to minimize the stretching of the belt, and of polyamide (P) yarn in the weft direction for good belt flexibility.
- At 10% of nominal belt tensile strength: 1 % maximum Elastic stretch: 0.5% to 0.7% for standard carcase Permanent stretch: 0.4% to 0.7%.
- Excellent fastener holding capacity - from 50% to 90% - which makes this joining technique increasingly popular.
- The «solid-woven» carcase is covered with cotton pile yarns laid in the warp direction, and special edge reinforcements which make the belt exceptionally resistant:
  - to impacts by sharp or large materials,
  - to longitudinal tearing,
  - to carcase wear in case of substantial damage in the rubber cover.
As the carcase is highly compact, the thickness of the outer rubber covers can be reduced.

Operating temperature range
- Humidity

Temperature from: -25°C to 70°C
The belt is impervious to humidity and moisture.

Belt joining
DYNA belts can be joined by any of the following methods:
the «hot» vulcanized Finger splicing method, using DEPREUX or other jointing materials and a field press, - the «cold» Finger splicing method: using special glues, - with mechanical fasteners. In this case, DEPREUX can supply the required length with fasteners ready for use at each end. Please note that a small increase in belt length is required to make the splice. Also, in the case of «hot» jointing, the splicing materials used have an effective shelf life of less than 6 months and should not be stored at high temperatures.
The splicing procedure is described in detail in a separate document available on request.

Description of product
DYNA EP 630/1 - 1000 - 4 + 2 SH
DYNA : Solid woven rubber belt
EP : Warp polyester E - Weft polyamide P
630 : Nominal tensile strength in N/mm
1 : Single ply
1000 : Width in mm
4 + 2 : Upper and lower covers thickness in mm
SH : Cover compound

Pulley diameter
Recommendation for pulley diameters see table on page 15.
## DYNA-P - Solid-woven belts with PVC covers

### Application
 DYNA-P belts are used for the transport of sharp and greasy materials because the PVC cover has a high resistance to cutting and to oil and grease. For example, the transport of metallic by-products.

### Tensile strength
 Usually 400 - 500 - 630 N/mm.

### Width
 Up to 1600 mm maximum.

### Belt construction
 The DYNA-P belt is made of a «solid-woven» textile carcass impregnated with PVC and protected by PVC covers. Cover characteristics: see table on page 14. Thicknesses and weights for different specifications, please contact us.

### Main mechanical properties
 The structure of the DYNA-P is very similar to that of the DYNA belt, especially with regards to the carcass. As a result, the mechanical properties are identical.

### Belt joining
 The DYNA-P structure is very similar to that of the DYNA belt, therefore in principle the joining method and fastening methods are much the same. The splicing procedure is described in detail in a separate document available on request.

### Description of product
 DYNA-P EP 630/1 - 1000 - 4 + 2
- **DYNA-P**: Solid-woven belt with PVC covers
- **EP**: Warp polyester E - Weft polyamide P
- **630**: Nominal tensile strength in N/mm
- **1**: Single ply
- **1000**: Width in mm
- **4 + 2**: Upper and lower covers thickness in mm.

### Pulley diameter
 Recommendation for pulley diameters see table on page 15.
Application
Steel cord belts are used in a wide variety of applications such as mining, harbour terminals, tunnelling projects, steel works, cement plants and power generation plants.
Steel cord belts are preferred to textile plied or solid-woven conveyor belts in the following situations:
- when the required tensile strength is high and the conveyor is narrow. The superior troughing capabilities of steel cord belt are suited to conveyors typically found in long overland conveyor systems, such as those between a quarry and a cement plant or steel works or tunnelling projects.
- when a very low elongation of the belt is required.
- when the life expectancy for the belt is the prime objective.
- when loading and transport conditions are compatible.

Tensile strength
From 500N/mm to 6400N/mm

Product description
A DX/steel-cord conveyor belt is composed of:
- Steel Cables placed at a constant pitch across the width of the belt.
- A special rubber-bonding layer to the cables and to the rubber covers.
- Top and bottom rubber covers.
The manufacture of a steel cord belt requires a heavy-duty steel cord production line together with an experienced, knowledgeable production team. DEPREUX Steel Cord belts (DX/ST) are the result of 80 years experience.

Steel cable construction
DEPREUX utilises the open type steel cord construction that allows the rubber to penetrate fully into the cable, which is a guarantee of the longevity for the belt. This technique optimises the adhesion and minimises corrosion to the steel cords in the case of damage to the belt.
Open steel cables also offer characteristics that enhance the impact absorption capability of the belt and makes for easy transition between the troughed position of the belt to flat and vice versa.
The steel cables are also protected against corrosion with special zinc plating.

Different bonding layer and cover combinations
The bonding layer is a key part of steel-cord belt. It has to be formulated to have:
- Good penetration in the cable
- Good adhesion with the cable
- Good adhesion with the cables, even after ageing
- Good adhesion with the cables even after the dynamic stresses of the conveyor operation
Cover characteristics: see table on page 14.
Thicknesses and weights for different specifications, please contact us.

Rip protection and the use of breaker plies
A risk for steel-cord belts is the possibility of penetration between the cords by a sharp foreign object and "ripping" along the length of the belt.
Two possibilities are available to protect the steel cord belt against such an occurrence.
1) Add a textile breaker ply in the cover of the belt. The P Type textile breaker is composed of high elongation strong yams that are positioned in the direction of the weft as indicated in the picture.
2) Add a steel breaker ply in the cover of the belt. The HE steel breaker ply is composed of a high tensile strength steel wire (7 times normal elongation) positioned in the direction of the weft.
Consideration of the breaker ply design in relation to the overall performance of the conveyor belt should be made because the higher the tensile strength of the breaker ply the greater the adverse effect on the troughing characteristics of the conveyor belt.
The following table shows the main technical parameters of High Elongation HE steel wire breaker plies:

<table>
<thead>
<tr>
<th></th>
<th>HE 125</th>
<th>HE 250</th>
<th>HE 315</th>
<th>HE 400</th>
</tr>
</thead>
<tbody>
<tr>
<td>TENSILE STRENGTH (N/mm)</td>
<td>0.7</td>
<td>1.20</td>
<td>1.45</td>
<td>2.50</td>
</tr>
<tr>
<td>WEIGHT (Kg/mm)</td>
<td>1.35</td>
<td>1.52</td>
<td>1.52</td>
<td>2.40</td>
</tr>
<tr>
<td>DIAMETER OF CABLE (mm)</td>
<td>8.9</td>
<td>6.4</td>
<td>5.1</td>
<td>7.1</td>
</tr>
<tr>
<td>PITCH (mm)</td>
<td>112</td>
<td>156</td>
<td>196</td>
<td>141</td>
</tr>
<tr>
<td>DENSITY (cords/m)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The DX/Steel Cord belt has to be spliced in compliance with the DEPREUX Splicing procedure (available on request).

The Belt joining

Recommendation for pulley diameters see table on page 15.

<table>
<thead>
<tr>
<th>Steel breaker ply technical parameters</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Technical parameters</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Type</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Unit</strong></td>
<td></td>
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<tr>
<td>ST 500</td>
<td></td>
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<tr>
<td>ST 630</td>
<td></td>
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<tr>
<td>ST 800</td>
<td></td>
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<tr>
<td>ST 1000</td>
<td></td>
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<tr>
<td>ST 1250</td>
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<tr>
<td>ST 5000</td>
<td></td>
</tr>
<tr>
<td>ST 5400</td>
<td></td>
</tr>
<tr>
<td>Tensile N/mm</td>
<td>500</td>
</tr>
<tr>
<td>Max. steel cord diameter mm</td>
<td>3.0</td>
</tr>
<tr>
<td>Min cord tensile strength KN</td>
<td>7.6</td>
</tr>
<tr>
<td>Space between cords (±1.5mm) mm</td>
<td>14.0</td>
</tr>
<tr>
<td>Min Thickness cover mm</td>
<td>4.0</td>
</tr>
<tr>
<td>Belt Width tolerance (mm)</td>
<td></td>
</tr>
<tr>
<td>+10/-5</td>
<td></td>
</tr>
<tr>
<td>600</td>
<td></td>
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<tr>
<td>+10/-7</td>
<td></td>
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<tr>
<td>650</td>
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<tr>
<td>+10/-8</td>
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<td>±12</td>
<td></td>
</tr>
<tr>
<td>1800</td>
<td></td>
</tr>
<tr>
<td>±14</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td></td>
</tr>
<tr>
<td>±14</td>
<td></td>
</tr>
<tr>
<td>2200</td>
<td></td>
</tr>
<tr>
<td>±15</td>
<td></td>
</tr>
<tr>
<td>2400</td>
<td></td>
</tr>
<tr>
<td>±15</td>
<td></td>
</tr>
<tr>
<td>2600</td>
<td></td>
</tr>
<tr>
<td>±15</td>
<td></td>
</tr>
<tr>
<td>2800</td>
<td></td>
</tr>
<tr>
<td>±15</td>
<td></td>
</tr>
<tr>
<td>3000</td>
<td></td>
</tr>
<tr>
<td>±15</td>
<td></td>
</tr>
<tr>
<td>3200</td>
<td></td>
</tr>
<tr>
<td>±15</td>
<td></td>
</tr>
</tbody>
</table>

N/A: Not applicable because of troughability
**Application**
DX-MAT IW is appreciated for the superior qualities it offers for resistance to tear, resistance to perforation in applications with strong impacts and the effect of high temperature from burning materials.

DX-MAT is utilised in special applications found in hard rock quarries, iron and steel industries and foundries.

DX-MAT is utilised for elevator belt applications requiring very high tensile strengths and yet minimal belt elongation, this belt will be presented in a separate brochure.

**Construction**
DX-MAT IW is a steel mesh conveyor belt made with steel-cords in the warp direction and protected by steel cords laid in the weft direction.

DX-MAT IW generally uses the Fleximat ® IW carcass.

In the DX-MAT IW carcass, the warp steel cables (type E) provide for both a limited elongation and a resistance to the compressive effects of impacts on the belt.

Compared to conventional steel cord belts, the weft of DX-MAT IW is composed of high elongation thin steel wires (type HE) to offer superior impact resistance.

DX-MAT IW offers superior impact and tear resistance.

**Vulcanizing and mechanical fastening**
DX-MAT IW conveyor belts are normally joined by hot vulcanising (ref to DEPREUX splicing procedure).

It is also possible to mechanically fasten DX-MAT IW belts but you should consult with our technical representative for the appropriate type of fastener.

**Belt structure**
Cover characteristics: see table on page 14.

Thicknesses and weights for different specifications, please contact us.

**Description of product**
DX-MAT IW 800 - 1000 - 6 + 3 - X

DX-MAT IW: Conveyor belt with straight steel (E) warp and steel weft (HE)

800: Tensile Resistance of the belt in N/mm

1000: Conveyor belt width in mm

6+3: Cover thickness in mm

X: Cover type

**Pulley diameter**
Recommendation for pulley diameters see table on page 15.
Comparison of different constructions for anti abrasive belts in type 1600 N/mm and effective cover of 6+2

<table>
<thead>
<tr>
<th>TYPE</th>
<th>Multi ply EP</th>
<th>Straight-Warp</th>
<th>Solid Woven</th>
<th>Steel cord</th>
</tr>
</thead>
<tbody>
<tr>
<td>Products</td>
<td>DELTA 1600/4</td>
<td>DX FLEX 1600/1</td>
<td>DX FLEXAMID 1600/1</td>
<td>DX/ST 1600/1</td>
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</tbody>
</table>

### DIMENSIONS AND CONSTRUCTION

<table>
<thead>
<tr>
<th>WARP</th>
<th>Polyester</th>
<th>Polyester</th>
<th>Aramide</th>
<th>Polyester</th>
<th>Steel Cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEFT</td>
<td>Polyniade</td>
<td>Polyniade</td>
<td>Polyniade</td>
<td>Polyniade</td>
<td>Steel Breaker or Textile</td>
</tr>
<tr>
<td>Other Construction fabrics</td>
<td>Polyamid</td>
<td>Polyamid</td>
<td>Polyamid</td>
<td>Cotton</td>
<td></td>
</tr>
<tr>
<td>Number of Pies</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Requested total thickness of the Covers</td>
<td>6+2</td>
<td>6+2</td>
<td>6+2</td>
<td>6+2</td>
<td>6+2</td>
</tr>
<tr>
<td>Recommended thickness of the Covers</td>
<td>8+3</td>
<td>8+3</td>
<td>8+3</td>
<td>8+3</td>
<td>8+2</td>
</tr>
<tr>
<td>Carcase definition</td>
<td>4 textiles plies + 3 rubber interlayers</td>
<td>1 textile ply</td>
<td>2 textile plies + 1 rubber interlayer</td>
<td>1 textile ply</td>
<td>1 impregnated PVC carcase</td>
</tr>
<tr>
<td>Total thickness of the carcase</td>
<td>7</td>
<td>5,5</td>
<td>8,4</td>
<td>3,2</td>
<td>8,5</td>
</tr>
<tr>
<td>Belt total thickness</td>
<td>18,9</td>
<td>13,5</td>
<td>16,4</td>
<td>11,2</td>
<td>16,5</td>
</tr>
<tr>
<td>Weight (average) (kg/m²)</td>
<td>18,7</td>
<td>14,4</td>
<td>17,6</td>
<td>13,5</td>
<td>20</td>
</tr>
</tbody>
</table>

### MECHANICAL PROPERTIES

| Warp Resistance | 1600 | 1600 | 1600 | 1600 | 1600 |
| Longitudinal elongation at break | 14 | 14 | 14 | 4 | 14 |
| Range of operating temperatures | -25°C to +80°C | -25°C to +80°C | -25°C to +80°C | 0°C to +40°C | -25°C to +80°C |

### RESISTANCE TO POSSIBLE INCIDENTS

| Punctures from impact | + | ++ | + | + | +++ | (corrosion risk and liquid penetration between the cables) |
| Longitudinal tearing | + or ++ if special fabric (1 KN) | +++ if reinforced weft (5 KN) | +++ if reinforced weft (2 or 3 KN) | + | + or ++ if breaker |
| Edge wear | + | + | + | ++ | +++ |
| Fastener holding (mechanical joining) | + | ++ | + | +++ |
| Cover wear performance | + | + | + | +++ |

### FLEXIBILITY

| Transverse flexibility, Troughability | + | ++ | + | +++ | ++ | +++ |
| Longitudinal flexibility (on drum) | + | +++ | ++ | +++ | + |

### ELONGATION

| Typical Elastic Elongation (%) | 0,7 | 0,5 | 0,5 | 0,3 | 0,5 | 0,2 |
| Permanent elongation | 0,5 | 0,3 | 0,3 | 0,1 | 0,4 | low |
| Elongation on long conveyor (1000m center to center) (m) | 3,5 | 2,5 | 2,5 | 1,5 | 2,5 | 1,0 |

### OTHERS PROPERTIES

| Safety factor | > 8 | > 8 | > 8 | > 8 | > 8 | > 6 |
| Minimum diameter Head drum (mm) | 1250 | 800 | 1000 | 800 | 800 | 1000 |
Rubber cover

<table>
<thead>
<tr>
<th>Designation</th>
<th>Application</th>
<th>Abrasion (mm3)</th>
<th>Breaking strength (Mpa)</th>
<th>Breaking Elongation (%)</th>
<th>Temperature</th>
<th>Composition</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Moderately abrasive materials with a low granularity such as: sand, earth and coal, in normal conditions</td>
<td>&lt;150</td>
<td>&gt;14</td>
<td>&gt;400</td>
<td>-25°C à +80°C</td>
<td>SBR/BR</td>
</tr>
<tr>
<td>X H</td>
<td>Sharp material, blocks</td>
<td>&lt;120</td>
<td>&gt;25</td>
<td>&gt;450</td>
<td>-25°C à +80°C</td>
<td>NR/BR</td>
</tr>
<tr>
<td>Y L</td>
<td>Abrasive materials of medium granularity</td>
<td>&lt;150</td>
<td>&gt;20</td>
<td>&gt;400</td>
<td>-25°C à +80°C</td>
<td>NR/SBR/BR</td>
</tr>
<tr>
<td>W D</td>
<td>Highly abrasive materials</td>
<td>&lt;90</td>
<td>&gt;18</td>
<td>&gt;400</td>
<td>-25°C à +80°C</td>
<td>NR/SBR/BR</td>
</tr>
<tr>
<td>SH</td>
<td>Highly abrasive materials</td>
<td>&lt;70</td>
<td>&gt;20</td>
<td>&gt;450</td>
<td>-25°C à +80°C</td>
<td>NR/SBR</td>
</tr>
<tr>
<td>ICE/STICK</td>
<td>Abrasive materials, thin and sticky, use at very low temperatures</td>
<td>&lt;50</td>
<td>&gt;14</td>
<td>&gt;350</td>
<td>-45°C à +80°C</td>
<td>NR/BR/SBR</td>
</tr>
</tbody>
</table>

Special cover

The ICE / STICK cover is a rubber cover that combines both excellent cold resistance and excellent anti sticking.

- Recommended when the environment is very cold to a temperature of -45 °C.
- Use for the transport of sticky materials such as clay, mud, wet cement, compost ... when a belt cleaner is not sufficient
- Excellent resistance to abrasion, <50mm³.
- Can be combined with all types of our carcase ranges:
  DELTA, DYN A, DX-FLEX, DX/ST…

PVC cover

<table>
<thead>
<tr>
<th>Designation</th>
<th>Breaking strength (Mpa)</th>
<th>Breaking elongation (%)</th>
<th>Abrasion (mm³)</th>
<th>Temperature</th>
<th>Composition</th>
</tr>
</thead>
<tbody>
<tr>
<td>PVC</td>
<td>&gt;15</td>
<td>&gt;350</td>
<td>&lt;140</td>
<td>+0°C à +50°C</td>
<td>PVC</td>
</tr>
</tbody>
</table>

Hot splicing products

DEPREUX can supply the following splicing material. Please read carefully DEPREUX splicing procedure for the product you need to splice, or consult us before ordering the splicing material.

1) Splicing material in bulk, which is the most competitive option:
   - Dissolution, packaging by 1, 5, 10 or 25 litres
   - Skim, packaging by 25 ml roll, width 500 mm and thickness of 0.5 mm
   - Cover, conditioning by 25 ml roll, width 500 mm and thickness 1, 2, 3 or 4 mm
   - Scrim fabric dipped with RFL (SBR latex) or RFL(NBR latex) in 10m roll length, and 1500 mm width (to be cut to 45 °) to be used for splicing DX-FLEX or DYN A or DYN A-P belts PVC paste in tins of 5 liters for DYN A and DYN A-P belts

2) Splicing material in individual kits:
   - for DELTA, DELTA selftrack and DX-MAT belts, they consist of: dissolution + skim + cover
   - for DX-flex and DX-flexamid belts, they consist of: dissolution + skim + cover + scrim fabric
   - for DYN A and DYN A-P belts, they consist of: PVC paste + scrim fabric + cover
   - for DX/ST belts, they consist of: dissolution + nodules + skim + cover

3) Kits simplified
   - Dissolution + Skim
### DELTA, DELTA CFW or DELTA SELFTRACK

<table>
<thead>
<tr>
<th>Tensile Strength N/mm</th>
<th>315</th>
<th>400</th>
<th>500</th>
<th>630</th>
<th>800</th>
<th>1000</th>
<th>1250</th>
<th>1400</th>
<th>1600</th>
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</thead>
<tbody>
<tr>
<td>Number of plies</td>
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<td>3</td>
<td>3</td>
<td>4</td>
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</tr>
<tr>
<td>Pulley type A</td>
<td>250</td>
<td>315</td>
<td>400</td>
<td>500</td>
<td>630</td>
<td>800</td>
<td>1000</td>
<td>1000</td>
<td>1250</td>
</tr>
<tr>
<td>Pulley type B</td>
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<td>250</td>
<td>315</td>
<td>400</td>
<td>500</td>
<td>630</td>
<td>800</td>
<td>800</td>
<td>1000</td>
</tr>
</tbody>
</table>

### DX FLEX or DX-FLEX RT

<table>
<thead>
<tr>
<th>Tensile Strength N/mm</th>
<th>400</th>
<th>500</th>
<th>630</th>
<th>800</th>
<th>1000</th>
<th>1250</th>
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<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
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<tr>
<td>Pulley type A</td>
<td>315</td>
<td>315</td>
<td>315</td>
<td>500</td>
<td>630</td>
<td>800</td>
<td>800</td>
<td>800</td>
<td>1000</td>
</tr>
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<td>Pulley type B</td>
<td>250</td>
<td>250</td>
<td>250</td>
<td>400</td>
<td>500</td>
<td>630</td>
<td>630</td>
<td>800</td>
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### DX-FLEXAMID

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<th>Tensile Strength N/mm</th>
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<th>1800</th>
<th>2000</th>
<th>2500</th>
<th>3150</th>
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<tbody>
<tr>
<td>Pulley type A</td>
<td>800</td>
<td>1000</td>
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<tr>
<td>Pulley type B</td>
<td>630</td>
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### PVG-PVC-DYNA

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<th>630</th>
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<th>1000</th>
<th>1250</th>
<th>1400</th>
<th>1600</th>
<th>1800</th>
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<th>2500</th>
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<td>Number of plies</td>
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<td>1</td>
</tr>
<tr>
<td>Pulley type A</td>
<td>400</td>
<td>400</td>
<td>500</td>
<td>500</td>
<td>630</td>
<td>800</td>
<td>800</td>
<td>800</td>
<td>1000</td>
<td>1000</td>
<td>1250</td>
</tr>
<tr>
<td>Pulley type B</td>
<td>315</td>
<td>315</td>
<td>400</td>
<td>400</td>
<td>500</td>
<td>630</td>
<td>630</td>
<td>630</td>
<td>800</td>
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### STEEL CORD

<table>
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<tr>
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<th>ST630</th>
<th>ST800</th>
<th>ST1000</th>
<th>ST1250</th>
<th>ST1600</th>
<th>ST2000</th>
<th>ST2500</th>
<th>ST3150</th>
<th>ST3500</th>
<th>ST4000</th>
<th>ST4500</th>
<th>ST5000</th>
<th>ST5400</th>
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<td>1</td>
</tr>
<tr>
<td>Pulley type A</td>
<td>500</td>
<td>500</td>
<td>630</td>
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<td>1600</td>
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<td>1400</td>
<td>1400</td>
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</table>

### DX MAT

<table>
<thead>
<tr>
<th>Tensile Strength N/mm</th>
<th>IW500</th>
<th>IW630</th>
<th>IW800</th>
<th>IW1000</th>
<th>IW1250</th>
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<td>1</td>
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<td>1</td>
</tr>
<tr>
<td>Pulley type A</td>
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<td>500</td>
<td>800</td>
<td>800</td>
<td>1000</td>
<td>1000</td>
<td>1000</td>
</tr>
<tr>
<td>Pulley type B</td>
<td>400</td>
<td>400</td>
<td>630</td>
<td>630</td>
<td>800</td>
<td>800</td>
<td>800</td>
</tr>
</tbody>
</table>

Pulley Type A: High tension pulleys Wrap: Head, Drive, Tripper
Pulley Type B: Low tension pulleys Wrap: Tail, Take-up, Take-up bend
YOU CAN RELY ON HIGH-PERFORMANCE LOGISTICS & SERVICES

With a main logistics platform in Lille (France), offices and storage facilities in Poland, U.S.A and Australia we can provide our clients with:

- A wide range of stock belting specifications
- Cutting services to customise belts width and length
- Pre-drilling of elevator belts on request
- Buckets for elevator belts together with related fastening and installation equipment (eg: bolts, clips...)
- A “one stop shop” for conveyor belt related products such as splice kits, glues, mechanical fasteners, idlers, loading stations, belt cleaners, vulcanising presses...
- Short delivery periods
- Most importantly, high quality technical service and support at all times.

DEPREUX is part of the COBRA GROUP. For further information on the COBRA Group activities please contact your local COBRA office:

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