# Mercurio Aramid
# Conveyor Belt

MERCURIO
CONVEYOR BELT

Once again, Mercurio Conveyor Belt innovates and presents the ultimate solution for the toughest applicantions and to reduce energy consumption, the **Mercurio Aramid Conveyor Belt.**

Made up with a single aramid fabric, stronger andl lighter than steel, the **Mercurio Aramid Conveyor Belt** has unique tensile and weight resistance properties and thus there is a higher variety of applications and achives broader range of conveyor belt replacement on the market, considering that it can also replace steel cord belts in some applications as it has low elongation.

With characteristics of high resistance and flexibility, the **Mercurio Aramid Conveyor Belt** is indicated for severe applications, demonstrating excellent efficiency against tear and rupture and high impact absorption.

Very economic, the **Mercurio Aramid Conveyor Belt** when compared to other types of belts, can be 30% lighter, which allows lower energy consumption when applied in long distance conveyors.

| Industry | Application (with adequate covers*) | Benefits |
|---|---|---|
| Mining | Indicated for transport of material at medium and long distance, which require high tensile strength. Severe applications, which have to absorb impacts. | Energy reduction.<br>Better efficiency in critical operations. |
| Steelmaking and Ports | Blast Furnace Belt - where use of conventional belts is not recommended due to the high temperature. Long distance belts, which require high tensile strength. | Belt service life increase.<br>Energy reduction. |
| Paper and Cellulose | Log Belt - excellent resistance to tear and impact absorption. | Belt service life increase. |
| Fertilizers | Reaction Belt - excellent resistance to chemical reaction. | Belt service life increase. |
| Cement Plants, Calcinations and Quarries | Excellent in impact absorption and resistance to tear. | Belt service life increase. |

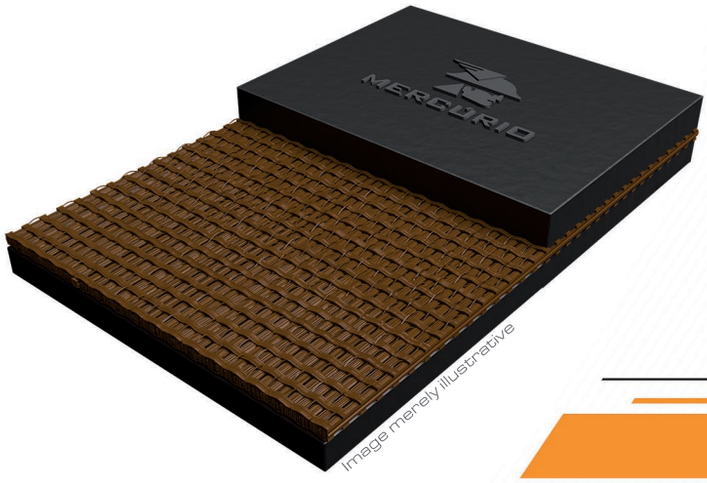


Image merely illustrative

For adequate specification of the **Mercurio Aramid Conveyor Belt**, contact our highly specialized Application Engineering and Technical Assistance teams.

## Superior Combination of Tensile Strength, Flexibility and Lightweight

# Technical Data

| Type | DPP 630 | DPP 800 | DPP 1000 | DPP 1250 | DPP 1600 | DPP 1800 | DPP 2000 | DPP 2500 | DPP 3150 |
|---|---|---|---|---|---|---|---|---|---|
| Carcass Weight (kg/m²) | 1.3 - 1.4 | 1.3 - 1.5 | 1.6 - 1.7 | 1.6 - 1.7 | 1.9 - 2.1 | 2.2 - 2.4 | 2.8 - 3.0 | 2.9 - 3.1 | 3.1 - 3.4 |
| Carcass Thickness (mm) | 1.8-2.2 | 2.2-2.6 | 2.2-2.6 | 2.5-2.9 | 2.8-3.3 | 2.9-3.4 | 3.3-3.8 | 3.7-4.2 | 3.7-4.2 |
| Minimum Resistance to Rupture (N/mm) | 630 | 800 | 1000 | 1250 | 1600 | 1800 | 2000 | 2500 | 3150 |
| Belt Width (mm) | 900 - 1800 | 900 - 1800 | 900 - 1800 | 900 - 1800 | 900 - 1800 | 900 - 1800 | 900 - 1800 | 900 - 1800 | 900 - 1800 |
| Admissible Tension Factor 10 (N/mm) | 63 | 80 | 100 | 125 | 160 | 180 | 200 | 250 | 315 |
| Admissible Tension Factor 7 (N/mm) | 90 | 115 | 145 | 180 | 230 | 260 | 285 | 360 | 450 |
| Elongation of Admissible Tension Factor 7 or Factor 10 (%) | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Elastic Module Factor 10 (N/mm) | 12600 | 16000 | 20000 | 25000 | 32000 | 36000 | 40000 | 50000 | 63000 |
| Elastic Module Factor 7 (N/mm) | 11250 | 14375 | 18125 | 22500 | 28750 | 32500 | 35625 | 45000 | 56250 |

***Available with Covers:** AB, EA, EAS, EAS Plus, X-EAS, AT, ATS, ATS Plus and Reaction AB.

**Mercurio Aramid Conveyor Belt** splice is made by means of the hot vulcanization system with the Finger techniques (cut in the shape of "saw teeth" on the carcass) or Overlap.

**Finger-Type Splice**

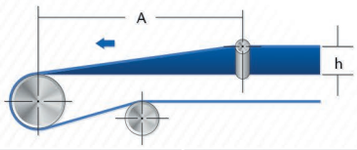
| Belt Type | | DPP 630 | DPP 800 | DPP 1000 | DPP 1250 | DPP 1600 | DPP 1800 | DPP 2000 | DPP 2500 | DPP 3150 |
|---|---|---|---|---|---|---|---|---|---|---|
| Pulley Diameter (mm) | > 80% - Min. | 400 | 500 | 500 | 600 | 600 | 700 | 800 | 900 | 1000 |
| | 60% - 80% - Min. | 350 | 400 | 400 | 500 | 500 | 600 | 650 | 750 | 850 |
| | 40% - 60% - Min. | 300 | 350 | 350 | 400 | 400 | 500 | 500 | 600 | 700 |
| | 0% - 40% - Min. | 250 | 300 | 300 | 350 | 350 | 400 | 450 | 500 | 600 |
| Reference: Belt Tension | | | | | | | | | | |

**Overlap-Type Splice**

| Belt Type | | DPP 630 | DPP 800 | DPP 1000 | DPP 1250 | DPP 1600 | DPP 1800 | DPP 2000 | DPP 2500 | DPP 3150 |
|---|---|---|---|---|---|---|---|---|---|---|
| Pulley Diameter (mm) | > 80% - Min. | 600 | 800 | 800 | 900 | 900 | 1000 | 1000 | 1100 | 1150 |
| | 60% - 80% - Min. | 500 | 650 | 650 | 750 | 750 | 850 | 850 | 950 | 1000 |
| | 40% - 60% - Min. | 450 | 500 | 500 | 600 | 600 | 700 | 700 | 800 | 850 |
| | 0% - 40% - Min. | 400 | 450 | 450 | 500 | 500 | 600 | 600 | 700 | 700 |
| Reference: Belt Tension | | | | | | | | | | |

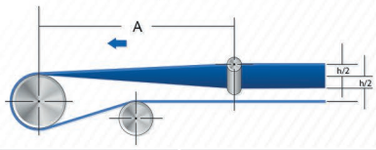
## Transition Distance

Transition is the change of the belt planes, i.e., its passage from the plane to the lodged and vice-versa, which may cause tension unbalance between the edges and the center, so it must be adequately designed. It may occur in two ways:




| Side Rolls Tilting Angle (αr) | Minimum Transition Distance (A) |
|---|---|
| 20° | 2.6 x W |
| 35° | 3.1 x W |
| 45° | 3.9 x W |

W - Belt Width




| Side Rolls Tilting Angle (αr) | Minimum Transition Distance (A) |
|---|---|
| 20° | 2.4 x W |
| 35° | 2.8 x W |
| 45° | 3.7 x W |

W - Belt Width