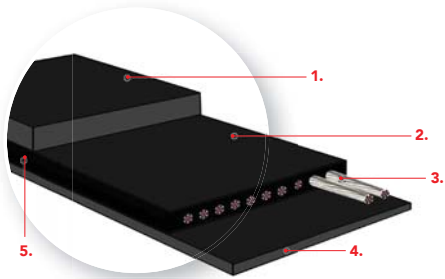


STEEL CORD BELTING



1. Top cover in cover grade compound and thickness
2. Core bonding rubber
3. Galvanised steel cords
4. Bottom cover in cover grade compound and thickness
5. Sealed belt edges

- Full range of secure packaging methodologies
- Belt supply contract experience
- OPEX spares and breakdown emergency supply
- Brownfield or Greenfield Project supply
- Vendor owned stock options
- 10 steel cord belt production lines
- Output capacity in excess of ±120 km per month
- Custom design constructions and manufacturing capability

Features & Benefits

- Suited for medium to long length overland conveyor systems
- Capable of handling large capacity loads at high speeds
- High tensile strength belt ratings
- Excellent splicing efficiency
- Good belt stability at high speed conveying
- Low elongation properties with less take up needed
- Excellent belt troughability, belt flexibility and load support
- Long service life expected
- Extensive range of constructions offering fit-for-purpose designs

Generally, designed to satisfy and exceed the requirements of a wide variety of heavy load transportation at great speeds, with high belt breaking strengths, at long centre distances or steep gradients, under average to severe conditions.

Quality & Standards

Double Arrow's extensive product range is manufactured at our ISO 9001 accredited production facilities in compliance to the relevant technical standards and specification requirements.

All products are strictly quality controlled through the manufacturing process, and upon completion, fully tested at our on-site laboratory according to the internationally recognised test methods such as AS1333, AS1683, ISO, DIN, ASTM, and other.

Double Arrow Steel Cord belting conforms to and exceeds:

- Australian Standard 1333
- Australian Standard 4606
- Other on case by case

Furthermore, our product range has been, and is, regularly tested by external accredited independent testing facilities to demonstrate meeting client technical specifications, of which, test results are well in excess of the Australian Standard or Client specifications.

Belt Construction

Constructed as a single plane of ultra-strong, zinc galvanised coated steel cords, completely impregnated and encased with specially developed core bonding rubber, protected by outer cover rubber compounds formulated to endure operational demands. These cover grades cater for general purpose, high abrasion and impact resistance, oil resistance, heat resistance, super abrasion resistance, extra cut and gouge resistance, fire resistance and anti-static, and a low rolling resistance bottom cover option. The cord construction and belt design is dependent on the nature of application, and where required, can be determined on case by case.

Typically, a 7 x 7 cord design is applied to low tension lines, whilst a 7 x 19 design is applied to high tension lines. Optional reinforcements such as breaker fabric, steel rip resistant in-lays, or antenna sensor loops, can be embedded into the belt.



7x7 Applied to low tension lines



7x19 Applied to high tension lines

Capability & Capacity Outline

- An extensive range of high-end quality belt constructions and ratings
- Maximum belt width of 3000mm; belt tensile rating up to ST7500
- Roll length of up to ±1,100 metres; roll weight of up to ±50 tonne

Technical Information

Belt Designation	Nominal Cord Diameter (mm)	Minimum cord Breaking Force (kN)	Cord Pitch (mm)	Recommended Min. Pulley Diameter (Over 60% of maximum belt tension)			Maximum Working Tension (kN/m width)	Splice Detail	
				Type "A" (mm)	Type "B" (mm)	Type "C" (mm)		No. of Steps	Min. Step Length (mm)
ST500	2.8	7.3	13.8	500	400	315	75.0	1	600
ST630	3.0	9.3	13.8	500	400	315	94.5	1	600
ST800	3.4	11.6	13.8	500	400	315	119.9	1	600
ST1000	4.1	16.5	15.3	630	500	400	149.9	1	700
ST1250	4.6	20.6	15.3	800	630	500	187.4	1	750
ST1400	4.9	23.1	15.3	800	630	500	209.9	1	800
ST1600	5.5	29.1	17.3	800	630	500	239.9	1	900
ST1800	6.1	32.7	17.3	1000	800	630	269.9	1	1000
ST2000	6.4	36.4	17.3	1000	800	630	299.9	1	1000
ST2500	7.5	51.1	19.4	1250	1000	800	374.8	1	1250
ST3150	8.5	64.6	19.4	1250	1000	800	472.3	2	1075
ST3550	9.0	72.8	19.4	1400	1250	1000	532.2	2	1150

NOTES: Add the thickness of the cover rubber to the cord diameter to get the estimated total belt thickness. Based on Table 1 in AS1333-1994. Other cord constructions available on request.

Rubber Cover Grade	Minimum Tensile Strength (MPa)	Minimum Elongation at break (%)	Maximum Abrasion loss (mm ³)
AS-N	17	400	200
AS-M	24	450	125
AS-A	17	400	70
AS-F	14	300	250
AS-S	14	300	250
KSOR	14	350	200
DIN K	20	400	200
LRR	17	400	115
QM	20	400	150
XCG	26	500	105
SAR	17	400	50

NOTES: Our "TYPICAL" cover compound properties will surpass the specification requirements ~ further information available on request. Special compound blends are available to suit application demands.

Belt Roll Length Calculation

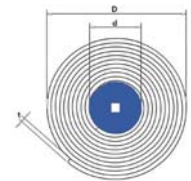
Approx. Roll Diameters / Lengths

D = Outside Roll Diameter (m)
d = Inner Core Diameter (m)
t = Belt Thickness (mm)
L = Belt Length (m)

Equation: -

$$D = \sqrt{(0.001273 \times t \times L + d^2)}$$

$$L = (D^2 - d^2) / (t \times 0.001273)$$



Conveyor belt for diversified materials handling industries:

- Surface Mine Operations
- Iron Ore Applications
- Ports and Harbours
- Cement Works
- Hard Rock Processing
- Thermal Power Plants
- Underground Mining
- Extractive Minerals
- Quarries and Sand Pits
- Iron and Steel Industry
- Sugar and Grain
- Timber and Woodchip

