



DUNLOP

Starflex

All-Synthetic Conveyor Belting

A clear winner in design and performance ... by over 15,000,000 metres!

Dunlop STARFLEX was introduced over 25 years ago India's first all-synthetic conveyor belting. Today, with over two decades of experience in design, manufacture and application engineering with constant upgradation to match changing needs, STARFLEX is still the most preferred choice of the customer. Backed by an unbeatable combination of technical and development skills, Dunlop STARFLEX outperforms all competitive brands on every critical criterion.

Minimal Elongation :

Dunlop's own fabric designers have developed unique fabric designs to ensure low and controlled stretch of all-synthetic STARFLEX belting even in long-haul applications.

Superior-Belt Consolidation

High pressure vulcanisation coupled with specialised fabric treatment results in excellent physical and chemical bond ensuring adhesion levels way above industry standards, eliminating cover stripping and ply separation.

Outstanding Impact Resistance :

Specially compounded extra-resilient interply rubber and the inherent transverse flexibility of Dunlop STARFLEX belting make it the first choice in high-impact, heavy-duty applications.

Perfect Edge Construction :

State-of-the-art edge preparation system provides a uniform, hard wearing, self-sealed edge. Lacs of kilometers of cut-edge STARFLEX belts used over the years have consistently established their clear 'edge' over moulded edge belts.

Dunlop Product Consistency

A well preserved tradition of excellence-Dunlop STARFLEX belts have consistently passed through the most stringent quality assurance systems - commencing from selection of choicest rubber from the plantations and extensive evaluation of fabric on to rigorous checks on every batch of rubber compound. In-process controls coupled with exhaustive finished product evaluation to Dunlop's own standards ensure that every metre of STARFLEX belting is not just consistent in quality-it's the best value of money.

Product Specifications

Dunlop STARFLEX conveyor belting is available in both all Nylon (NN) and Polyester-Nylon (EP) carcass and can be manufactured in different grades, as stated herein:

- ❖ **Grade M-24** : Compounded from premium quality natural rubber to provide excellent resistance to cutting gouging, wear and tear and conforms to the maximum abrasion loss value & minimum tensile strength specified for Grade M-24 in IS 1891 (Part - I) Latest
- ❖ **Grade N-17** : Compounded rubber with improved flex life for moderately abrasive material conforming to the maximum abrasion loss value & minimum tensile strength specified for Grade N-17 in IS 1891 (Part - I) Latest
- ❖ **Grade HR / Betaplus** : Specially compounded rubber capable of withstanding thermal degradation for prolonged periods and recommended for handling materials like alumina, ash, clinker, foundry sand, etc, at temperatures above 65°C and upto 120°C for fines and 140°C for coarse materials, as per IS. 1891 (Part - II) Latest.
- ❖ **Grade SHR** : Thoroughly proven in the field, this grade has been specially formulated, using selected synthetic and natural rubber, to provide superior heat and abrasion resistance and is recommended for handling material like foundry sand, clinker, coke wharf, coke breeze and sinter having temperatures over 65°C, upto 140°C for fines and 160°C for coarse, as per IS.1891 (part-II) Latest
- ❖ **Grade FR** : The growing demand for fire resistant rubber conveyor belting was first catered to by Dunlop with this grade of cover rubber. Our Bureau on Indian Standard Specification No. IS:1891 Part (V) 1993 and The Canadian Standards Association Specification (CSA) No. CAN/CSA-M422-M87 of 1987-Type C.
- ❖ **Grade OR** : This cover grade with specially blended synthetic compounds is designed to give the best possible resistance to mineral, vegetable and animal oils as per The Bureau of Indian Standard Specification No.IS-1891 Part(III) 1988.
- ❖ **Grade UHR** : Specially formulated, using selected synthetic rubber to provide superior heat & abrasion resistance and is recommended for handling material like hot cement, clinker, phosphate hot sintered ore having temperatures over 165°C for fines and over 180°C for coarse.
- ❖ **Grade SAR** : Specially formulated from premium quality natural & synthetic rubber to provide excellent resistance to highly abrasive material against tear and wear and to the maximum abrasion loss value of 90 mm³.
- ❖ **Grade CMR** : This cover grade with specially blended synthetic compounds provides best possible resistance to different chemicals.
- ❖ **Belt Designation** : Dunlop Starflex belts are available in different duty types viz. General, Extra & Heavy. For details, please see overleaf.

Standards Applicable

Dunlop all-synthetic STARFLEX Conveyor Belting conforms to the following standards, as and wherever applicable : IS : 1891 (Parts I, II,III,IV and V), CAN/CSA-M422-M87 IPSS-2-03-066-88. DIN

Dunlop is Dunlop Forever



DUNLOP

Starflex

Technical Data : Dunlop STARFLEX Conveyor Belts are designated to denote the minimum guaranteed full thickness tensile strength and the number of reinforcing plies of synthetic textile e.g. 500/3 denotes a belt having a minimum guaranteed full thickness tensile strength of 500kN/m, incorporating 3 plies of textile reinforcement.

Belt Designation		Maximum Recommended working Tension (Vulcanised Splice)	Carcass Thickness	Carcass Weight for M24/N-17 Grade Belting (Nominal)	Maximum Belt Width (mm) for Adequate Load Support (Material Density in T/M ³)			Maximum Belt Width (mm) for Adequate Troughing of Empty Belt		
Type	Rating	(kN/m)	(mm)	(kg/m ²)	Upto 1.0	Upto 1.5	Upto 2.5	20° idlers	30° idlers	45° idlers
General Duty	250/2	25	1.8	2.1	650	600	450	400	400	450
	315/3	31	3.0	3.2	1000	800	650	400	450	500
	400/3	40	3.0	3.4	1050	900	650	500	500	500
	500/3	50	3.3	3.7	1200	1000	800	500	500	500
	630/3	63	3.8	4.2	1200	1000	800	500	500	500
Extra Duty	630/4	70	4.4	5.1	1400	1200	1000	500	500	650
	800/4	90	5.3	5.7	1600	1400	1050	500	500	650
	1000/4	110	5.8	6.5	1800	1400	1200	500	650	800
	1250/4	140	6.8	6.9	1800	1600	1400	650	650	800
	1250/5	140	7.3	8.2	1800	1800	1600	650	800	900
	1400/5	155	8.2	8.8	2000	1800	1800	650	800	900
	1600/5	180	8.7	9.7	2000	2000	1800	800	800	1000
	1800/6	190	10.6	11.8	2000	2000	2000	800	800	1000
Heavy Duty	250/2	25	2.8	3.4	900	650	500	450	450	500
	315/3	31	3.5	4.5	1200	1000	800	500	500	500
	400/3	40	3.8	4.7	1200	1000	800	500	500	600
	500/3	50	4.3	5.0	1400	1200	900	500	500	600
	630/3	63	4.8	3.5	1400	1200	1000	500	500	650
	630/4	70	6.1	7.0	1800	1400	1200	500	650	800
	800/4	90	6.7	7.7	1800	1600	1400	600	800	900

- 2 ply synthetic belting is not recommended except for bunker sealing applications due to splicing difficulties and poor splice efficiency.
- Should you fail to find a belt suitable for your application from this list of standard constructions, please refer to us for other types of belting available from our comprehensive range but not listed here.
- Load support adequacy is based upon belts between idlers being limited to a maximum of 2% of idler span.
- The above carcass weights pertain to all nylon (NN) fabric belts. For polyester nylon (EP) belts, the weight is higher by 5%.

For enquiries, write to or contact :

India Tyre & Rubber Co. (India) Ltd. •

Regd. Office / Head Office

Berger House, 5th Floor, 129 Park Street, Kolkata - 700 017

Phone : 033-2217-8775 // Fax : 033-2226-7929

e-mail : ecare@itr.co.in // Website : www.dunlopitr.com

