

THE COVERS

Every cover grade, against IS and DIN

The top cover takes the wear, the heat or the oil. Each grade below is a compound built to meet the limits shown, named as it is in IS 1891 and in DIN 22102, so a tender written to either standard reads straight across.

9 Cover grades	17–24 MPa minimum tensile	≤ 90 mm ³ abrasion, best grade	150 °C Hottest continuous duty
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Grade		IS 1891	DIN 22102	Tensile MPa, min	Elongation %, min	Abrasion mm ³ , max	Heat continuous
● Y	General purpose	IS 1891 N17	DIN -Y	17	400	200 	–
● X	High abrasion	IS 1891 M24	DIN -X	24	450	150 	–
● W	Super abrasion	–	DIN -W	18	400	90 	–
● T1	Heat resistant T1	IS 1891 Pt 2 HR	DIN -T	–	–	–	≤ 100°C
● T2	Heat resistant T2	IS 1891 Pt 2 HR	DIN -T	–	–	–	≤ 125°C
● T3	Super heat resistant T3	IS 1891 Pt 2 SHR	DIN -T	–	–	–	≤ 150°C
● G	Oil resistant	IS 1891 Pt 4 OR	DIN -G	–	–	–	–
● FR	Fire resistant antistatic	IS 1891 Pt 5	DIN -S/K	–	–	–	–
● FG	Food grade	–	White FDA type	–	–	–	–

Abrasion: volume lost on the standard drum, so a shorter bar wears longer. A dash means the grade is defined by its special property (heat, oil, flame, food contact) rather than that figure.

WHAT EACH GRADE IS FOR

Y General purpose The workhorse grade for everyday material handling.	X High abrasion For sharp, heavy and highly abrasive materials.	W Super abrasion Maximum wear life where abrasion is extreme.
T1 Heat resistant T1 Hot materials up to 100°C continuous.	T2 Heat resistant T2 Clinker, sinter and hot ash up to 125°C.	T3 Super heat resistant T3 The hottest duties, up to 150°C continuous.
G Oil resistant Mineral and vegetable oils, greases and solvents.	FR Fire resistant antistatic Flame resistance to ISO 340 with antistatic covers.	FG Food grade White hygienic covers for food contact duty.

Hardness and ageing

Cover hardness is held within ±5 Shore A of the declared value, and oven aged specimens must keep their strength within the grade limits.

Naming a grade

Give the grade with the belt, for example EP 630/4 6+2 X. In a tender, quote the IS or DIN name from this chart and we answer clause by clause.



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CHOOSING

Start from the material

The material	What it does to a belt	Grade
Coal, sand, grain, aggregate	General materials, moderate wear	Y
Ore, granite, slag, crushed rock	Sharp, heavy, abrasive	X or W
Hot clinker, sinter, ash	Up to 100, 125 or 150 °C	T1, T2 or T3
Oily scrap, fertiliser, wood chips	Oils, greases, solvents	G
Underground and fire risk areas	Flame and static	FR
Food, sugar, packed goods	Food contact	FG

PROOF

The tests behind every figure

Specimens from each production run are tested in our lab. The test certificate with every supply reports these results against the grade's limits.

1 Tensile strength of covers **IS 3400 Pt 1 / ISO 37**
Dumbbell specimens pulled to break. N17 demands 17 MPa, M24 demands 24 MPa.

2 Elongation at break **IS 3400 Pt 1 / ISO 37**
How far the cover stretches before it breaks. 400% for N17, 450% for M24.

3 Abrasion loss **IS 10066 / ISO 4649**
Volume lost against a standard abrasive drum, in mm³. Lower is better.

4 Ply adhesion **IS 1891 / ISO 252**
Force to peel cover from ply and ply from ply. Minimum 3.5 N/mm between plies.

5 Full thickness breaking strength **ISO 283**
The belt pulled whole to its rated kN/m and beyond.

6 Cover hardness **IS 3400 Pt 2 / ISO 48**
Shore A hardness, held to ±5 of the declared value.

7 Ageing resistance **IS 3400 Pt 4**
Oven aged specimens must keep their strength within limits.

Cover thickness

Grade sets what the rubber resists.
Thickness sets how long it lasts: light duty 3+1.5 mm, mining 5+2 or 6+2 mm, heavy lumps 8+3 mm and up.

ISO 14890 names

The international grades H, D and L map to the high abrasion, super abrasion and general purpose duties above.

Not sure?

Send the material, its temperature and lump size. Our engineers choose the grade and reply with a datasheet.

Want the grade chosen for you?

Fill in our Conveyor Data Form (BR-FM-01) or send the details by email. We reply the same working day.

info@bostonrubbers.com

+91 92161 81222



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