

Rip Resistant Conveyor Belts

With increasingly larger facilities using continuous conveyor lines, potential loss due to a ripped belt has increased, including a potential factory shutdown to repair or replace belts to restore operations. Rip resistant belts are suitable for use on remotely controlled conveyor systems, in which a gouge to the belt may cause the entire circumference of the belt to rip.

Applications

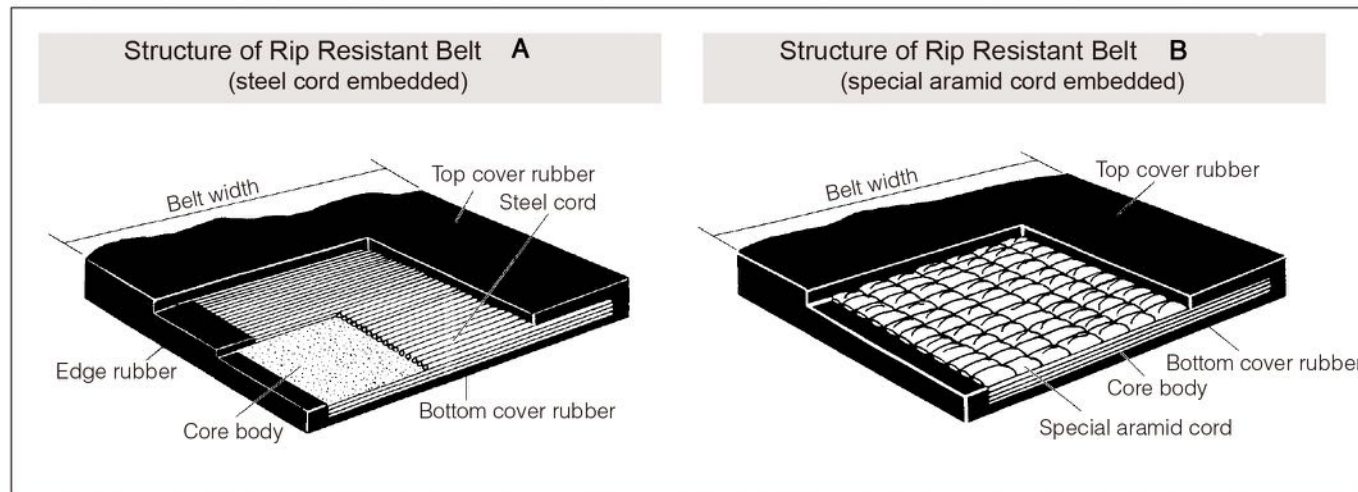
- Lines conveying sharp objects where belts may be easily gouged.
 - Lines containing foreign matter, such as steel or iron pieces, which tend to cause belt rips
- Examples
- Cullet conveyance in glass plants
 - Burr conveyance in foundries
 - Pressed steel conveyance in machinery plants
 - Slag conveyance
 - Bulk waste disposal sites, crusher lines
- Examples
- Cargo unloading lines
 - Bulk materials receiving yards
 - Mine feeder belts

Features

1. Superior rip resistance
2. Superior impact resistance, with effective impact absorption
3. Superior gouge resistance and mitigation
4. Improved belt durability reduces costs
5. Reduced maintenance

Structure

Steel cord or aramid cord are embedded, in the width direction at constant pitch, between the core EP canvas and the top cover rubber. This enhances gouge protection, which is a cause of belt ripping, and strengthens rip resistance.



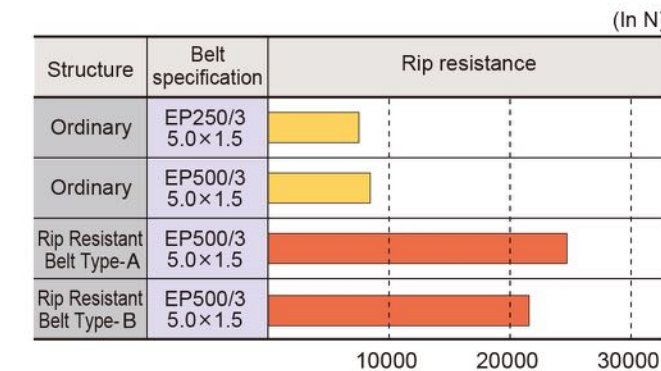
Rip Resistant Belt selection criteria

1. steel cords become exposed, and metal fragments mix into the load being carried.
2. Lines using metal detectors and magnetic pulleys.
3. Items being conveyed come into contact with the steel cord and the load is rejected after inspection.

Rip Resistant Belt Capabilities

Vertical tear resistance

Rip Resistant Belt Types 6 and 6B have remarkable lateral reinforcement, with resistance 2.5 – 3 times more effective than belts without such reinforcement.



Impact resistance

Lateral reinforcement is remarkably effective. Type-6, with stronger reinforcement that Type-6B, is best suited to large bulk conveyance exposed to large impact force.

Structure	Belt specification	Impact resistance	
		Impact conditions	Core body strength retention rate
Ordinary	EP250/3 5.0×1.5	● Drop height 0.96 m	(Severed after 3 times)
Ordinary	EP500/3 5.0×1.5	● Impact: 100 times	(Severed after 14 times)
Rip Resistant Belt Type-A	EP500/3 5.0×1.5	● Impact weight (knife-edge shaped) 15 kg	~80%
Rip Resistant Belt Type-B	EP500/3 5.0×1.5		~50%

Gouge resistance

The effect of lateral reinforcement and the resistance and mitigation effect against gouging is substantial. Ideal for the conveyance of materials prone to gouge, such as cullet, cast burrs, pressed steel sheets, etc.

Structure	Belt specification	Sticking resistance	
		Conditions	Depth of flaw
Ordinary	EP250/3 5.0×1.5	● Drop height 1.54 m	~100%
Ordinary	EP500/3 5.0×1.5	● Single impact	~100%
Rip Resistant Belt Type-A	EP500/3 5.0×1.5	● Impact weight (knife-edge shaped) 15 kg	~50%
Rip Resistant Belt Type-B	EP500/3 5.0×1.5		~50%

Labels for Depth of flaw: Top cover rubber, Reinforced layer, 1P, 2P, 3P, Bottom cover rubber, Sever.

