



MT668 UNDERGROUND STEEL CORD BELT

Flame-resistant and anti-static technical reference for underground coal mining applications

PRODUCT DATASHEET

TECHNICAL REFERENCE DOCUMENT

Version 1.0 | 2026-08-19

Underground Coal Mining Applications

MT668 steel cord conveyor belts are intended for demanding underground coal transportation systems where flame propagation control, electrical conductivity and high tensile capacity must be considered together.

- Long-distance underground main haulage conveyors
- High-capacity coal transport with steel cord reinforcement
- Conveyors in locations with restricted escape conditions
- Projects requiring project-specific flame-retardant and anti-static testing

KEY CONFIGURATION RANGE

ST 630 - ST 5400	15 MPa	Up to 17 mm
Belt strength range	MT668 cover tensile strength minimum	Cord pitch in supplied MT668 table

Source: Steel_Cord_Conveyor_Belt_Technical_Indicators.xlsx and EN14973_Underground_Steel_Cord_Belt_Safety_Grade_Comparison.xlsx.

Safety Grade Comparison

Reference	Application / Scope	Surface Resistance	Max. Drum Surface Temp.	Burner Test Summary
MT 668-2008	Flame-resistant steel cord conveyor belt for coal mining	$\leq 300 \text{ MOhm}$	325 C	With cover: 3 s / 10 s; without cover after-glow: 5 s / 15 s
GB 21352-2008	Flame-resistant steel cord conveyor belt for underground mines	$\leq 300 \text{ MOhm}$	325 C	With cover: 3 s / 10 s; without cover after-glow: 5 s / 15 s
EN 14973 C1	Restricted escape; gas, combustible material or dust may be present; no auxiliary safety system	$\leq 300 \text{ MOhm}$	325 C	18 / 30 s total; 10 / 15 s individual, before / after removing covers

Important: These references have different scopes, terminology and test frameworks. They are presented separately and are not represented as equivalent certifications.

Source: EN14973_Underground_Steel_Cord_Belt_Safety_Grade_Comparison.xlsx.

Flame-Retardant & Anti-Static Requirements

Property	MT 668-2008 / Supplied Requirement
Cover tensile strength	≥ 15 MPa
Elongation at break	$\geq 350\%$
Abrasion loss	≤ 200 mm ³
Surface resistance	≤ 300 MOhm
Maximum drum surface temperature	325 C
Laboratory gallery test	See the applicable standard and test method requirements

- Confirm the required standard edition before quotation.
- Confirm whether product approval, batch testing or third-party certification is required.
- Do not infer project compliance from a comparison table alone.

Source: EN14973_Underground_Steel_Cord_Belt_Safety_Grade_Comparison.xlsx.

Four-Layer Belt Construction

1	Top Cover Rubber	Flame-resistant and anti-static wear surface selected for the application.
2	Skim / Adhesion Rubber	Bonding layer designed to transfer load between covers and steel cords.
3	Galvanized Steel Cord Carcass	Longitudinal tensile member; diameter and pitch vary by ST rating.
4	Bottom Cover Rubber	Protects the carcass from pulleys and idlers while supporting conductivity requirements.

05 - ST 630 TO ST 5400

Main Technical Indicators

Rating	Strength N/mm	Pitch mm	Cord Dia. mm	Break Force kN	Min. Cover mm	Pull-Out Before N/mm	Pull-Out After N/mm
ST 630	630	10	3	7	4	60	50
ST 800	800	10	3.5	8.9	4	67.5	57.5
ST 1000	1000	12	4	12.9	4	75	65
ST 1250	1250	12	4.5	16.1	4	82.5	72.5
ST 1400	1400	14	5	20.6	4	90	80
ST 1600	1600	12	5	20.6	4	90	80
ST 1800	1800	13.5	5.6	25.5	4	99	89
ST 2000	2000	12	6	25.6	4	105	95
ST 2250	2250	11	5.6	26.2	4	99	89
ST 2500	2500	15	7.2	40	5	123	113
ST 2800	2800	13.5	7.2	39.6	5	123	113
ST 3150	3150	15	8.1	50.5	5.5	136.5	126.5
ST 3500	3500	15	8.6	56	6	144	134
ST 4000	4000	15	8.9	63.5	6.5	148.5	138.5
ST 4500	4500	16	9.7	76.3	7	160.5	150.5
ST 5000	5000	17	10.9	91	7.5	178.5	168.5
ST 5400	5400	17	11.3	98.2	8	184.5	174.5

Values reproduced from the supplied technical indicators workbook. Confirm final construction against the approved production specification.

Cover Rubber Requirements

Property	Requirement	Grade H	Grade D	Grade L
Tensile Strength (MPa)	At least	24	18	15
Elongation at Break (%)	At least	450	400	350
Abrasion Loss (mm ³)	Maximum	120	100	200
Tensile Strength and Elongation Retention After Aging (70 deg C x 168 h)	At least	0.75	Not provided	Not provided
Adhesion Strength Between Cover Rubber and Core Rubber (N/mm)	At least	12	Not provided	Not provided

Grade selection depends on abrasion, impact, conveyed material, temperature and project standard. The H/D/L table is a separate general cover-grade reference and does not by itself establish MT668 compliance.

Source: Steel_Cord_Conveyor_Belt_Cover_Rubber_Grades.xlsx.

Selection & Customization Information

- Required belt rating and applicable safety standard
- Belt width, conveyor center distance and lift height
- Capacity, belt speed, trough angle and pulley diameters
- Top and bottom cover thickness
- Coal size distribution, impact conditions and moisture
- Operating temperature and underground environmental conditions
- Splice method, reel length, packaging and inspection requirements

AVAILABLE CONFIGURATION

Ratings, cord pitch, cord diameter and cover construction must be selected as one approved belt design. Values shown in this datasheet are technical references, not an automatic manufacturing specification.

Request for Quotation Checklist

Information Required	Customer Input
Company / project / country	Not provided
Conveyed material and application	Not provided
Required capacity (t/h)	Not provided
Belt width and speed	Not provided
Conveyor length and lift height	Not provided
Inclination / trough angle	Not provided
Required ST rating	Not provided
Cover thickness and grade	Not provided
Required safety standard / approval	Not provided
Quantity and delivery destination	Not provided

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Technical reference only. Confirm the applicable current standard edition, safety grade, approval scope, test requirements and final manufacturing specification before quotation, production or certification use.