



We Understand Solid Woven
PVC/PVG Conveyor Belts for Fire
Resistant Under Ground Mining Applications

■ INDICA CONVEYORS LTD

Company

- Multiple State-of-the-art finishing lines with vacuum impregnated coating in PVC Covers and Press technology for PVG Covers.
- Wide variety & ever expanding loom age/ capacity.
- * INDICA's extensive experience in innovative solid woven textile design and manufacturing insures products with exceptional performance and a fast response to specific customer requirements.
- Quick response to requests for custom design and engineering enhancements to suit customer requirements
- Proven expertise in textile (solid woven) design and weaving technology.
- Only company in India with original Wilson & Long bottom Double Rapier looms weaving 2 carcass at a time, and also original Wilson & Long bottom Single Rapier looms.
- Proven expertise in PVC compounding as well as rubber compounding for PVG belting.
- Proven expertise in manufacturing process, design and testing.
- Proven experience in modifications of plant and equipment to meet new customer requirements.
- Reputation for On Time Delivery (OTD) to our extensive customer base throughout the world.
- Commitment to meeting the most stringent Quality standards.
- Commitment to meeting the highest standards of Customer Service and Support.



INDICA CONVEYORS LTD

Introduction

- 20+ years of solid woven FRAS PVC/PVG experience in-house.
- Membership in multiple Indian & global technical standards committees.
- Research oriented technical team of highly qualified personnel working on the next generation weave & cover compounds.

Some of our key personnel have more than 20 years of experience in the research and development, manufacturing and marketing of conveyor belts for bulk material handling with specialization in underground mining operation. INDICA has an unbroken track record of innovation in product design and application engineering with a deep commitment to customer service and safety.

INDICA has the ability to significantly enhance the efficiency and productivity of bulk material handling operations while keeping safety as number one priority. Given the severe conditions under which conveyor systems operate, it is important to select the right belt for each application: to resist fire propagation, impact, abrasion, bacteria, acid and water and produce overall trouble free long service life.

With our stringent quality control mechanisms and one of the best conveyor belting test facilities, INDICA™ fire resistant antistatic (FRAS) conveyor belting is an efficient, reliable, and safe conveyor belt for profitable mining operation.





■ Product

INDICA offers a fully integrated product design and manufacturing process that offers our customers the following benefits:

- Complete in-house manufacturing process including yarn preparation, weaving, FRAS compound impregnation and coating, and the ability to provide rubber covers, when required.
- Solid woven carcass is designed to meet tensile strength requirements, operate efficiently at rated working tensions, and above all safely. These belts also offer impact resistance, tear resistance, and excellent fastener retention.
- * FRAS PVC compound impregnation and covers provide optimum longitudinal and transverse flexibility, whether the conveyor system is empty or fully loaded, and provides the required flame retardant properties.
- Ability to manufacture heavier FRAS Rubber covers on FRAS PVC solid woven carcasses that offer a higher coefficient of friction, longer wear, and more tonnage over the life of the belt.
- Unique solid woven carcass selvege design protects belt edges and resists edge fraying.
- * Excellent belt tracking on long center conveyors as well as multiple transfer points, both loading and unloading.
- Each roll of belting is subjected to continuous in-process quality testing and must meet our stringent final quality standards, both physical properties and FRAS requirements.
- Products can be designed to conform to any country-specific FRAS standards for use in underground mines as well as surface applications where there is a potential for fire.
- Products can be spliced by mechanical fasteners or by a finger splicing using hot vulcanizing methods.
- * Excellent for elevator belt applications as well due to unique carcass design and Plastisol consolidation.



Safety Testing

Laboratory FRAS tests include flame (finger burn), flame propagation (Mid-scale/B.E.L.T), drum friction and antistatic (static conductivity). Laboratory PHYSICAL PARAMETERS tests include tensile (dumbbell test), tear, elongation, cover adhesion, abrasion, fastener retention and troughability test.



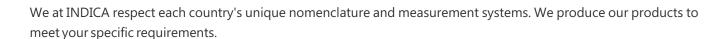
Quality Assurance

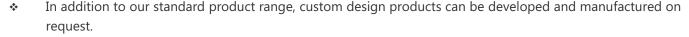
Concern for quality and continual in-process testing and controls are the basis of excellent products that offer safe and efficient operation. INDICA™ products undergo on-going quality checks in its well-equipped laboratories and shop-floors, from incoming raw materials to finished products.

- Incoming raw material yarns and chemicals are tested on arrival to the standard established with our suppliers.
- Every finished roll is tested for conformity to physical and FRAS test requirements of every user country or as agreed between the customer and INDICA.
- Physical properties include width, thickness (belt & covers), tensile strength (warp & weft), elongation (warp & weft), adhesion (cover to carcass and internal), fastener retention (static & dynamic), cover abrasion, trough ability, etc.
- In house FRAS tests include flame (finger burn), flame propagation (Mid-scale/B.E.L.T), drum friction and antistatic (static conductivity)

Product Range

- Width 750 mm to 1800 mm (30" to 72")
- ❖ Type 3500 PIW to 18000 PIW (440 kN/m to 3150 kN/m)
- Covers FRAS PVC (Up to 3.0 mm) and FRAS PVG (Up to 10.0 mm)
- Special Covers Available for abrasion, oil resistance, load impact
- Roll Length Long Roll Lengths possible subject to weight handling & transportation limitations.
- Color Black
- Special Weave Constructions Silent weave construction, load impact bearing, high-tear and rip resistant





- Our unique in-house R & D facility caters to each customer need to the best of our ability, providing custom formulations, specific widths and lengths, custom covers, colors and more.
- NDICA typically designs products to a Safety Factor of 10 (10:1), however, we are capable to consider any requirement where a different Safety Factor may be required.
- Physical characteristics of our standard products such as thickness and weight, as in the following table, are nominal values which can vary somewhat due to normal variations in the manufacturing process. Buyers are advised to get the nominal values reconfirmed before placing any order.
- Details can be provided upon request before an order is placed.



Product Approvals & Certifications

India

- ❖ ISO 9001:2015 (Global) Certified.
- As per DGMS circular Dt.: 13-02-2015 self certification in accordance with IS 3181: 1992 or latest.



United States of America

Mine Safety and Health Administration approval as per US-MSHA, Title 30 of Code of Federal Regulations (CFR) PART 14.



Canada

Canadian Standards Authority approval as per CSA-M422-14 Type A-1.



Standard Product Range

Warp Tensile Strength	Warp Tensile Strength	Weft Tensile Strength	Nominal Belt Thickness*	Nominal Belt Weight*	Minimum High Tension Drum Diameter	Minimum Low Tension Drum Diameter
(lbs/in)	(kN/m)	(kN/m)	(mm)	(kg/m2)	(mm)	(mm)
3500	630	265	7.5	9.8	400	315
5000	875	350	8.5	11.3	500	355
6000	1000	350	9.3	12.0	630	400
6500	1140	350	9.5	12.9	630	400
8000	1400	350	11.5	14.9	750	450
9000	1600	425	12.0	15.0	800	600
10000	1800	455	12.5	16.4	800	600
12000	2100	455	15.0	20.8	1000	750
15000	2625	455	16.0	22.4	1250	800

Note(*)

- 1. Nominal belt thickness and nominal belt weight figures are with 1.0 mm top and 1.0 mm bottom PVC covers. Values of both will alter with changes in top and bottom cover thicknesses.
- Customers are requested to verify the figures with INDICA of both belt thickness and belt weight before
 finalizing orders as these figures may undergo changes due to R&D activity and/or specific installation system
 requirement.



Inspection, Packing, Storage & Transportation

INSPECTION

Each belt roll is thoroughly inspected before shipment, even after thorough in-process and quality checks during the manufacturing process.

PACKING

Belt rolls, after inspection and QC release, are packed properly to withstand the rigors of long shipment. Each roll is properly marked inside and outside the packaging for easy identification and traceability.

USER STORES/WARE HOUSE

Belting requiring long term storage should be bound with steel or high tenacity plastic or textile straps and protected with waterproof plastic material. Keep the belt packing as a protection from oils, solvents, corrosive liquids, ozone, sunlight, and other adverse weather effects.

TRANSPORTATION

Belt rolls typically face long shipping distances by road, by sea and again by road or rail until they reach their final destinations. In between there can be additional loading and unloading at warehouses before the rolls reach customer locations. We pay special attention to the selection of quality transporters and shippers for damage free fast transit.



Our domestic roll packed like this



Inspection, Packing, Storage & Transportation

OZONE

As ozone can be particularly damaging to vulcanized rubber (PVG) storage rooms should not contain any equipment capable of generating ozone such as high voltage electrical equipment, electric motors or other equipment which may give rise to electric sparks or electrical discharges. Combustion gases and organic vapors should be excluded as they may give rise to ozone via photochemical reactions.



CUSTOMER SERVICE AND SUPPORT

INDICA not only believes in making quality products, we consistently strive for total customer service and satisfaction with both pre-sale and post-sale support.

Trained and experienced personnel assist customers in making the most cost effective belt selection, insure product availability, inventory support, and coordinate post-sale field service support.

We believe that every application is an opportunity to demonstrate the value of our products and support capabilities.



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