



# Fabric & Steel Cord Conveyor Belt

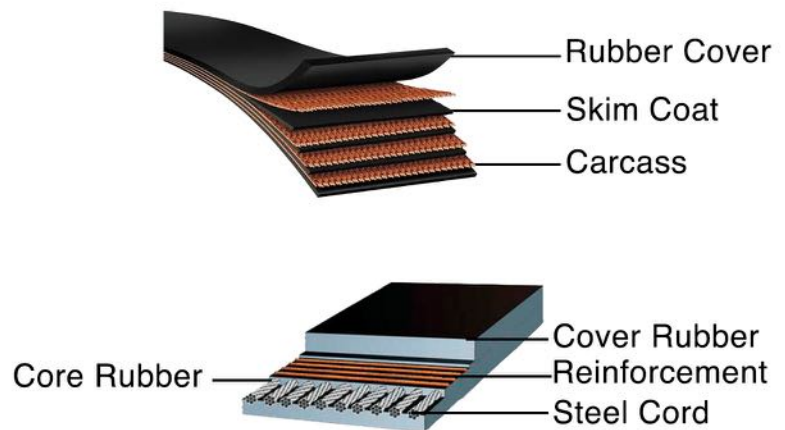
**PCB**  
Pro Conveyor Belt



# Fabric & Steel Cord Conveyor Belt

## Construction and Features of PCB Conveyor Belt

Belt is built up from 3 components: Cover Rubber, Carcass(Steel Cord) and Skim Coat(Core Rubber). In some applications like big dropping height, additional reinforced fabric and or steel cord could be used to ensure better impact resistance.



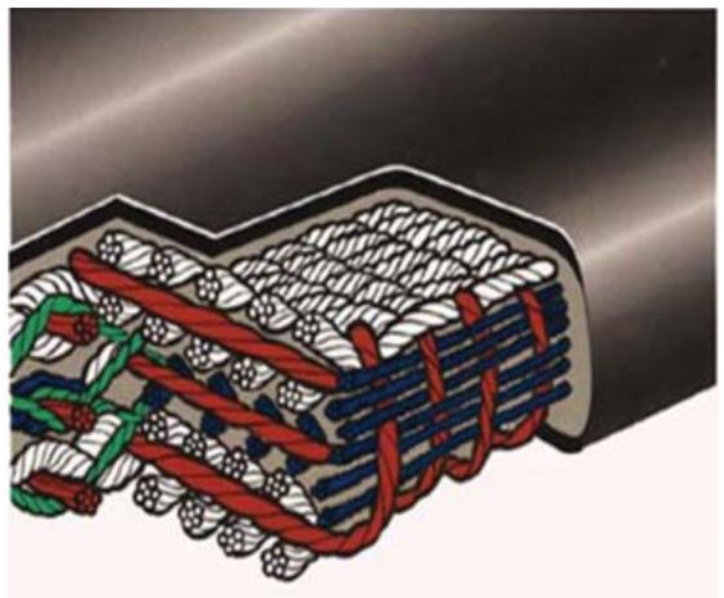
## Cover Rubber

By our unique formulars, we mix those very good Natural Rubber, Synthetic Rubber and some special chemical altogether as the cover rubber. These cover rubber can meet any your application,for example: wear-resistance, tear-resistance, heat-resistance, fire-resistance, cold-resistance, chemical-resistance, oil-resistance and anti-static, etc.

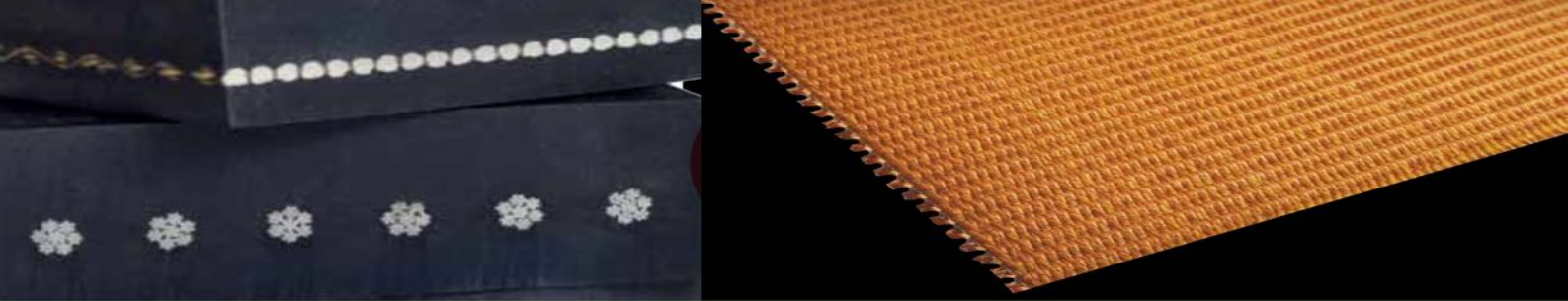
## Carcass

### ■ Solid woven

Consist of interwoven multiple layers of warp and filling yards.



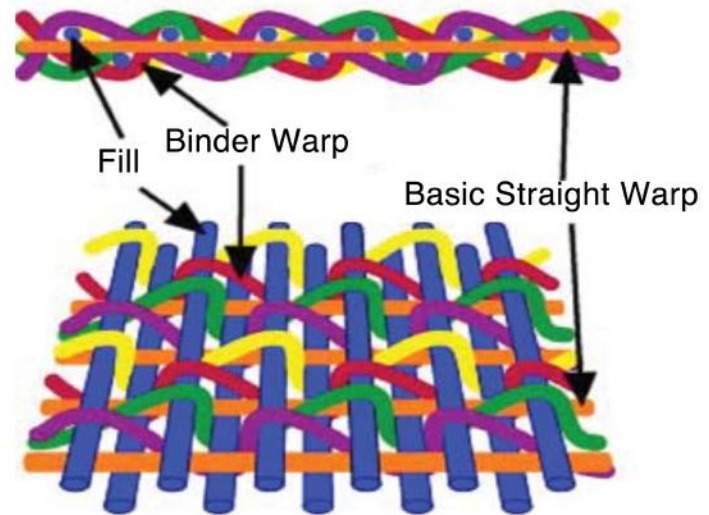




# Fabric & Steel Cord Conveyor Belt

## ■ Straight Warp Weave

Contains basic tension-bearing warp yarns which are essentially straight, that is without crimp. Also, binder warp yarns are interwoven with the filling yarns to provide mechanical fastener holding strength.

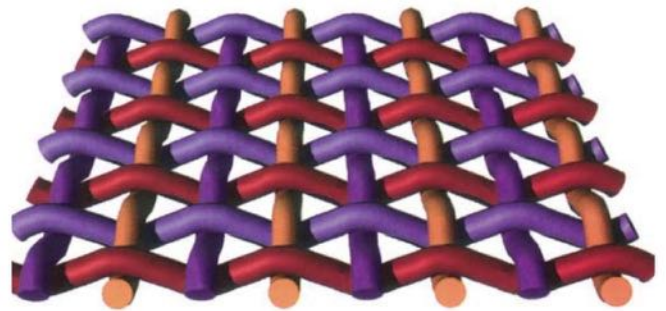


## ■ Polyester-Polyester

A fabric with polyester warp filling yarns.

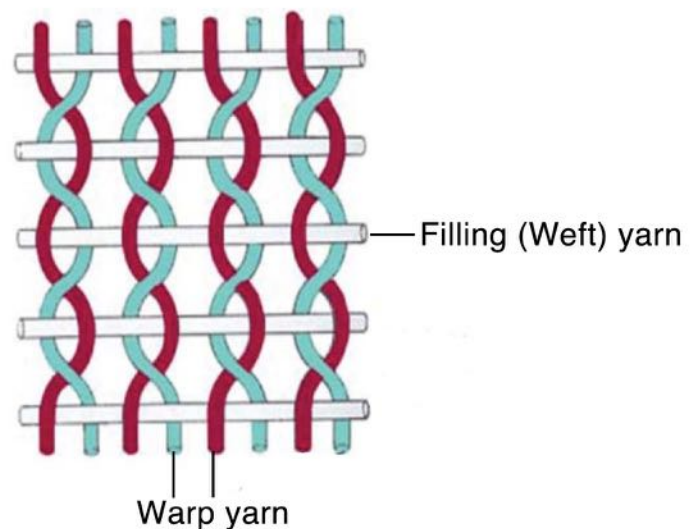
## ■ Polyester-Nylon

A fabric with polyester warp and nylon filling yarns.



## ■ Leno Weave

Which has an open mesh and is usually used for a breaker fabric



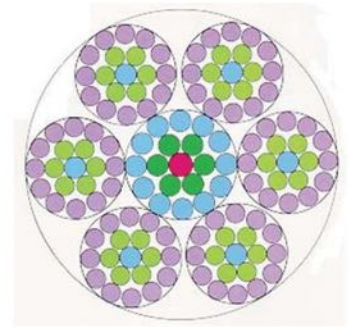
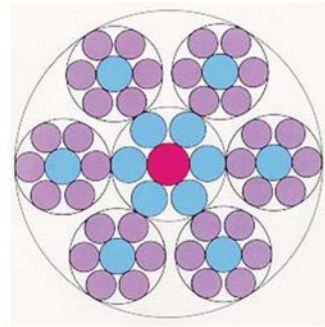




# Fabric & Steel Cord Conveyor Belt

## ■ Steel Cord

Steel cord is used to obtain high strength, excellent length stability, low bending stresses and, in some cases, to provide superior troughing characteristics



## Skim Coat or Core Rubber

Additional layers of skim rubber have applied between fabric and fabric. This is important to increase belt's flex life and preventing failure from ply separation.

During belt manufacture, the steel cord is encapsulated in a special core rubber that normally has properties different to the belt covers. It is important during manufacture that the core rubber penetrates right to the center of the steel cord as this stops adjacent filaments from contacting one another and fretting during bending and stretching of the cord in service. Once embedded in the core rubber, the cord strength increase by up to 5% and it becomes less like to suffer from corrosion caused by water penetrating the cord. The effectiveness of the rubber penetration can be determined by a special test (AS1333) which measures if there is any loss in air pressure along the cord when air is applied to one end of the cord at 14.5 psi (1 bar), and maintained for 1 minute on a 16 in long belt sample, 5% is the maximum acceptable pressure loss.

## Low Stretch

Our unique carcasses bear with the advantages of good tensile strength and minimum initial elongation. Both allow our customers to shorten their length of take-up stroke, thus a cost down can be got.

## High Tensile Strength

Once belts are run in long distance and/or heavy load application, our belts still keep very good tensile strength.





# Fabric & Steel Cord Conveyor Belt

## High Impact Resistance

Our carcasses own excellent elastic properties that protect belts against sudden shock during transportation by the way of absorbing and/or dispersing impact load.

## Better mildew and Moisture Resistance

With this property, neither belts nor carcasses will be damaged easily by moisture and mildew.

## High Waterproof

As the excellent adhesion between carcass and rubber, belts are waterproof and will not be separated easily while running. They are quite good to be used in the soggy place and also are not easy to be corroded, because of the feature of good chemical resistance.

## Long Service Life

A longer service life of PCB's conveyor belt is expected.

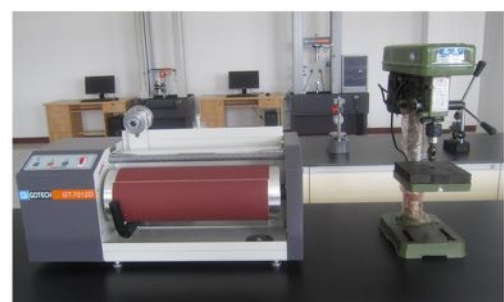
## Conveyor Belt Type Selection

A proper selection to the grade and thickness of cover rubber is important to belt's service life. Many different grades of cover rubber are available from PCB for your special application.



## ■ Abrasion Resistance Conveyor Belts

While running, cover rubber should be strong enough to protect belt against the excessive wearing and impact load that come from carried materials. Here we offer you very good abrasion resistant rubber to meet your application for the transportation of highly abrasive materials and also for the conveyor line which locate in a place where is not easy to access for maintaining.







# Fabric & Steel Cord Conveyor Belt

## Oil Resistance Conveyor Belt

Oily materials will make the ordinary cover rubber to be swelled and peeled off easily that cause an overall breakdown to the system finally. Our special oil resistant cover rubber could protect belt from this damage. It is very suitable for transporting the materials like oiled metal, food, bean, fish and material sprayed with oils.



## Anti-Static Conveyor Belt

This special cover rubber is compounded in preventing electrostatic occurred while belt running, so that no materials will stick onto belt surface to cause a burst.

## Chemical Resistance Conveyor Belt

Acid or alkali resistant cover rubber is available depends on the chemical nature of transported material.

## Heat Resistance Conveyor Belt

In general, it is wise and economical to use a heat resistant conveyor belt if the temperature of carried material is over 60 °C (140 F). They are popular for transporting Cement, Cokes, Sintered Ores, Soda Ash, Fertilizers, etc.



## Fire Resistance Conveyor Belt

This unique belt is made by a special rubber compound that will be extinguished itself in a short time once belt is fire. It is suitable for being used in underground mining system in prevention of fire risk.







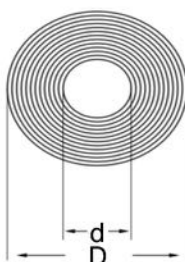
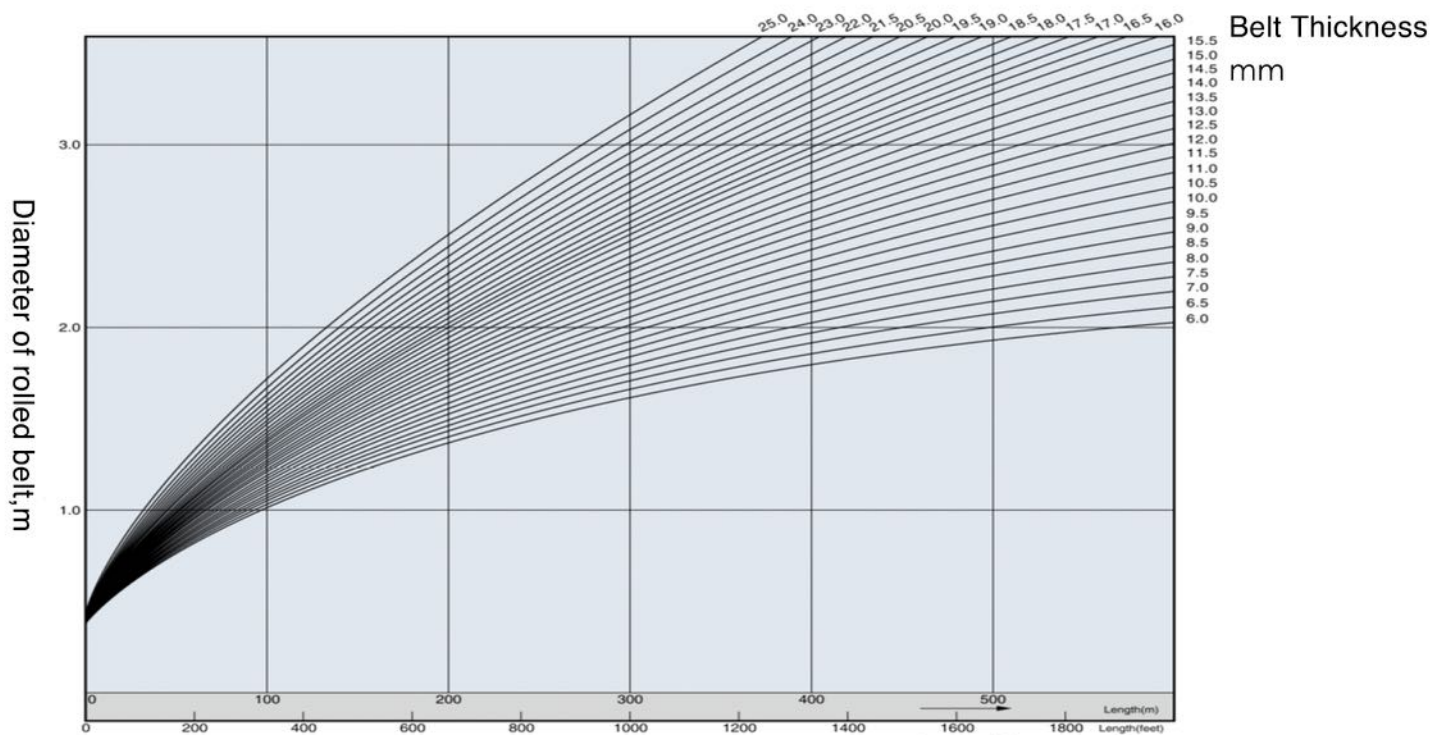
# Fabric & Steel Cord Conveyor Belt

## Cold Resistance Conveyor Belt

This special belt is made to be used in the frigid-zone where temperature probably down to minus 50 °C that an ordinary belt can't be used there.



## Length of Finished Belt and Diameter of Rolled Belt



L: Belt length  
d: Dia. of core (m)  
D: Dia. of roller Belt (m)  
t: Belt Thickness

Calculation of the Rolled Belt Diameter

$$D = \sqrt{\frac{4}{\pi} t \times L + d^2}$$



PCB(Pro Conveyor Belt) conveyor belts for all kind of applications – up to the strongest and heaviest belts ever built. Please contact us for any assistance regarding your conveyor belt requirements.

PCB (Pro Conveyor Belt) has the most modern testing centre worldwide for developing conveyor belts. Extensive quality tests ensure the technological lead of PCB conveyor belts.

PCB production locations meet the ISO 9001 quality standard. The certification according to ISO 9001 comprises quality assurance during development, production, assembly and distribution. It therefore completely covers all of the areas which lead to higher standards of products and services. PCB fabricates according to all the nationally relevant quality standards like DIN, SANS, MSHA, RMA, BS, AS, CSA, etc.

Pro Conveyor Belt Co., Ltd  
Office Address: Shenzhen Road, Qingdao City, Shandong  
Province, China  
Factory Address: HUtouai Town, Laizhou city, Shandong  
Province, China  
Phone: 0086-532-80999210  
E-mail: [pcb@pro-cb.com](mailto:pcb@pro-cb.com)  
Web: <http://www.pro-cb.com>

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