



CONVEY | ALL | THE | WAY

WE DIDN'T START THE FIRE



BUT WE EXTINGUISH IT



Fire Resistant

MAXX AGNI[®]
Fire Resistant Belts

Product Feature:

Mining and related industries are the prime drivers to the economy. It is therefore imperative as a part of the risk management for every installation, to assess, enable and assure the safety of the personnel and the installation. Studies have proven that in conveyors, the belt is an important component which requires due attention to address these risks.

The effect of a fire in an installation can be devastating in terms of losses. Conveyor belts are primarily composed of rubber and fabric, both components are known to be combustible and can contribute to the spread of fire. Thus, in case of a fire on an installation occurring due to the type of material, presence of flammable gases and a frictional or electrical event, the conveyor belt because it is moving, becomes a likely medium to propagate the fire.

In these circumstances, Oriental is in the forefront for developing and introducing fire resistant and retardant belts to mitigate different levels of risks. With the advancement in technology, it is possible to impart properties to conveyor belts so that in fact the propagation of the fire is arrested or limited at the source. This is done by using a combination of polymers, chemicals and additives which contribute to improving the fire retardant properties of the conveyor belt. This can often be achieved without compromising the wear life of the conveyor belt as well.

In order to cater to varying levels of fire resistance and to comply with various domestic and international standards, Oriental has developed a range of fire resistant belts which we promote under the umbrella brand **MAXX AGNI®**. This range includes belts suited for underground use and specialized belts with low smoke and toxicity.

MAXX AGNI® FR belts – WE DIDN'T START THE FIRE, BUT WE EXTINGUISH* IT

In areas where no fire risk was perceived earlier, we are observing an increased level of awareness and regulatory compliance. Applications where the material was not even considered hazardous (e.g. ores of platinum, chrome etc.), fire resistant belts are now being specified. In dock facilities carrying multiple commodities, similar acceptance is seen. The benefits of using **MAXX AGNI®** belts is tangible. Oriental manufactures the **MAXX AGNI®** belts in conformity to various international and national standards. Additionally, in line with the Oriental ethos to offer leading edge products, we have been continually introducing higher performing belts to the users - FROR, FRORHR, FRSAR, HFFR. (see table). The belts are offered with conventional EP/NN plied reinforcement as well as with MAXX ARMOUR™, MAXX ROCK® and MAXX STEELFLEX™

In our test facilities, we carry out extensive tests and R&D to remain in the forefront in this product segment.

Product application:

MAXX AGNI® belts are commonly used in handling coal over ground in Coal mines, Thermal power plants and in Underground coal mines. Fire Resistant belts are similarly used for conveying any other materials prone to ignition during use.

Industries:

Coal Mines | Thermal Power Plants | Ore Mines | Ports | Coal prep plants

Benefits of MAXX AGNI®:

- Reduces the risk of fire hazard and the potential loss of human life, material and installation
- **MAXX AGNI®** belts are Anti-Static
- Easy to splice

Product Characteristics:

Common Widths : 500 mm to 2600 mm (20" to 102") for EP/NN | 800 mm to 2400 mm (32" to 94") for ST
Carcass Variety Available : EP/NN, MAXX ROCK®, MAXX ARMOUR™, MAXX STEELFLEX™
Common Belt Rating : 200 to 3150 kN/m (110 to 1800 PIW) | ST500 to ST 7500 kN/m (430 to 6420 PIW)
No. of Plies : 1 ply to 7 ply
Rubber Cover Compounds : Refer table for detailed properties



MAXX AGNI® Cover Grade Selection Chart

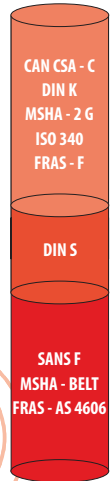
Fire Resistant Test compliance to Standard	Minimum Tensile Strength (MPa)	Minimum Elongation at Break (%)	Maximum Abrasion Loss (mm ³)	Application Characteristics	Reference Material
FR MSHA 2G	15	350	190	Moderate resistance to flame for over ground application	Coal, Grains, Ore etc.
FR CAN - C	17	400	175	Good resistance to flame for over ground applications	Coal Mines, Ore mines, Ports Thermal Power Plants, Coal Prep Plants
FR DIN K	17	400	175		
FR IS 1891	17	400	175		
FR 110	17	400	110	Good resistance to flame with high wear resistant for over ground applications	Handling Large Lumps of Coal and Other ores
FR OR - CAN C	14	400	200	Good resistance to flame, moderate Oil and Heat for over ground application	Pet Coke, Grains
HR FR OR - CAN C	12	300	175		
HFFR - CAN C	12.5	350	230	Halogen free low smoke good fire resistance belt for over ground applications	Coal conveying in presence of Gamma radiation based calorific value of Coal detection system
FR - AS F	17	400	175	Very good resistance to flame, suitable for high risk over ground/low risk underground application	Coal, Ore Mines
FR - DIN S	17	400	175		
FR - SANS 971:2003	17	400	175		
FR MSHA BELT (PART 14)	15	400	200	Excellent resistance to Flame propagation, suitable for underground mining application	Underground Coal mines and high Fire risk applications
FR - SANS 971:2013	15	400	170		
FR AS 4606:S	20	400	120		

Fire Resistant

Good

V. Good

Excellent



Note: For any specific cover grade requirement outside the chart, kindly contact Oriental's Technical service division

Rubber Covers Thickness : 1.5 mm to 25 mm (1/16" to 1")

Edge : Cut/Moulded Edge

Splicing Method : Hot/ Cold/ Mechanical

Belt Identification : Unique Product Identification Number (PIN) at every 10 Mtr (33')

MAXX AGNI®

These belts are recommended for use in coal and such types of mines where the ambient temperature may not be high but there is a distinct hazard of the belts being enveloped in fire. Rubber covers are Fire Resistant and Antistatic.

Oriental **MAXX AGNI®** range of belts are complying or have certification for major Fire resistant standards across markets like:

Title CFR 30, Part 14 of the MSHA (Mines Safety and Health Administration), USA |

FRAS S as per AS 4606:2012 | SANS 971:2013 | DIN 22103 | EN ISO 14973:2006 | IS 1891: Part 5 | CAN CSA M422-12





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Wear Resistant



Heat Resistant



Oil Resistant



Energy Saving

MAXX AGNI[®]
Fire Resistant Belts

