

In the selection of the fire proofing materials it is important to consider more than the product itself - the company and its values that support the product must also be carefully assessed:

Reputable Company - International Paint is part of the global Akzo Nobel group of companies.

Experience - Commercially available products supplied over the last 25 years, backed up by dedicated sales support specialists.

Global Supply - International Paint is recognized the world over as a market leading brand in the fire and corrosion protection of structural steel. Supply points in over 50 countries ensures timely deliveries.

Quality Design - We have a fully equipped ISO 9001 accredited fire protection laboratory equipped with testing furnaces.



Advanced ISO 9001 testing facilities are utilised in the development of our fireproofing materials.

Meaningful Approvals - fully externally audited approvals including monitoring the manufacturing, and application of Interchar onto of the test beams ensures that the tested materials are representative of production materials supplied.

Quality Manufacture - utilizing a network of ISO 9002 approved factories with strictly controlled raw material quality and finished product quality control ensures that integrity of Interchar is never in question.

International Paint's Commitment - we are confident that all of our products including the Interchar range meet the highest standard. As such, we welcome third party sampling and testing to verify all the published data on our products.

Summary

The **Interchar** range of products are ideally suited in providing fire protection for structural steel in facilities as varied as office buildings, stadia, power stations, shopping malls, hospitals, industrial complexes, hotels and airports.

Interchar quality products coupled with their aesthetically pleasing attributes allow designers to combine effective fire protection with the creative design afforded by exposed steelwork.

Interchar is specifically designed and tested for onshore facilities including:

- Airports
- Power Stations
- Stadia/Leisure
- Industrial Complexes
- Office Buildings
- Hotels
- Retail Complexes
- Educational Facilities

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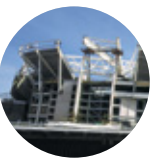


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 **International**
Protective Coatings



Interchar®
intumescent fireproofing



Interchar

Steel does not burn - but it does lose strength in a fire - loss of integrity will lead to a structural failure putting both lives and assets at risk. Materials designed to prolong structural integrity by retarding the rate of heating are known as fireproofing or fire protection materials.

During the 1990’s International Paint acquired the leading fireproofing brand Chartek®. This range has been successfully used to protect critical areas in the Oil & Gas industry for over 30 years.

This technology has now been used to deliver the Interchar product range.

www.interchar.com

Types of Fire

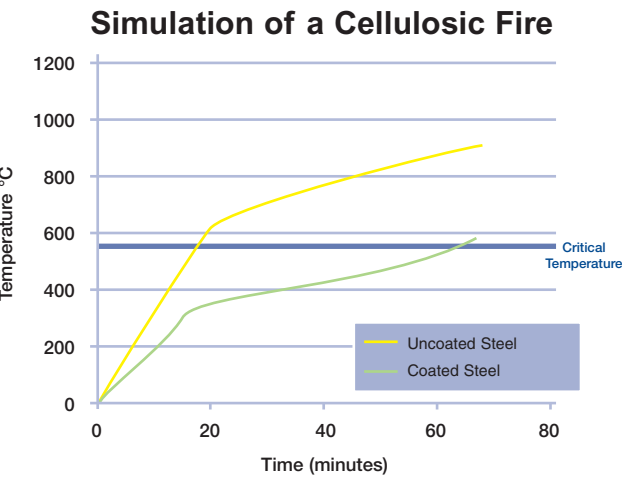
Broadly there are two main types of fire proofing - Cellulosic and Hydrocarbon - these categories are used to describe the differing fire sources that the structure may be subjected to.

Fire Source	Combustion Source	Characteristics	Typical Structures	Product
Hydrocarbon	Oil, Gas, Chemicals	High temperatures, rapid thermal gradient, can involve blast (explosive) and erosive jet fires	Offshore platforms, Petrochemical plants, LPG installations	Chartek
Cellulosic	Wood, paper	Moderate temperature gradient, stable low turbulence	Commercial infrastructure e.g office blocks, stadia, power stations	Interchar

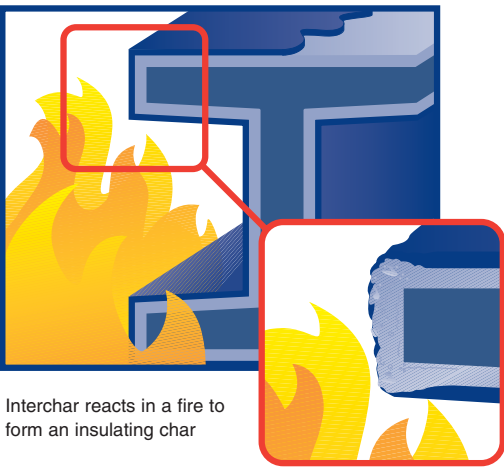
How do they work?

Above 500°C (930°F) steel starts to loose its structural integrity - at 600°C (1112 °F) steel loses 75% of its strength. Interchar and Chartek fireproofing materials are designed to react to the heat generated during a fire and to intumesce - or to “swell up” - providing a tough and stable insulating layer (also known as char) over the steel.

Intumescent fire proofing materials are designed to prolong structural integrity by retarding the rate of heating of structural steel members.



In this simulation the uncoated steel would fail in <20 minutes, whereas the Interchar protected steel exceeds 60 minutes prior to structural failure.



Selecting the correct product

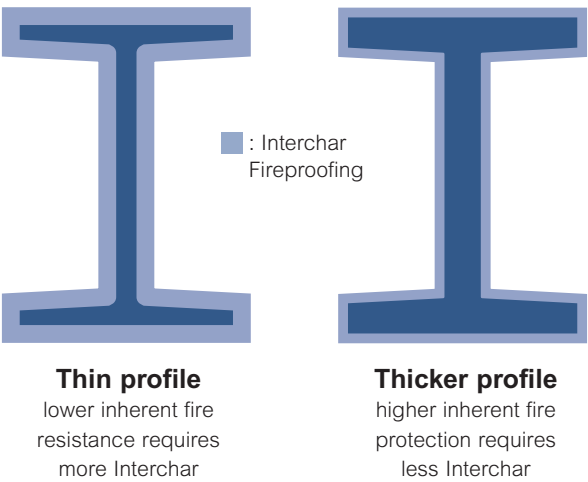
For the vast majority of onshore commercial infrastructure projects the Interchar range should be selected for protection against cellulosic fires. Based on our experiences in the offshore Oil & Gas industry, we are now able to offer Interchar 212 which has similar characteristics to our Chartek range including:

- Corrosion resistance in all ISO12944 atmospheric environments
- Blast resistance
- Superior fire test ratings
- Inherent damage resistance
- Excellent constructability credentials

Once the primary potential fire source has been established, some of the other variables that need to be considered in selecting the correct fireproofing are:

- The length of protection required (typically 1 hour, 90 minutes, 2 hours or 3 hours). This depends on variables such as the number of stories, occupancy and use of the building
- Regulatory approval - which fire standard is being employed
- Insurance implications - detailed fire engineering, including the correct use of Interchar fire proofing can assist in reducing premiums
- Project logistics/steel handling implications
- The location of the steel and the environmental conditions it will be exposed to
- The requirement for topcoating
- The overall design, e.g. the profile of the steel will affect the rate of heating, and hence amount of fire protection required

Larger steel profiles heat up slower than thinner profiles - and therefore require a lower thickness of Interchar to protect them.



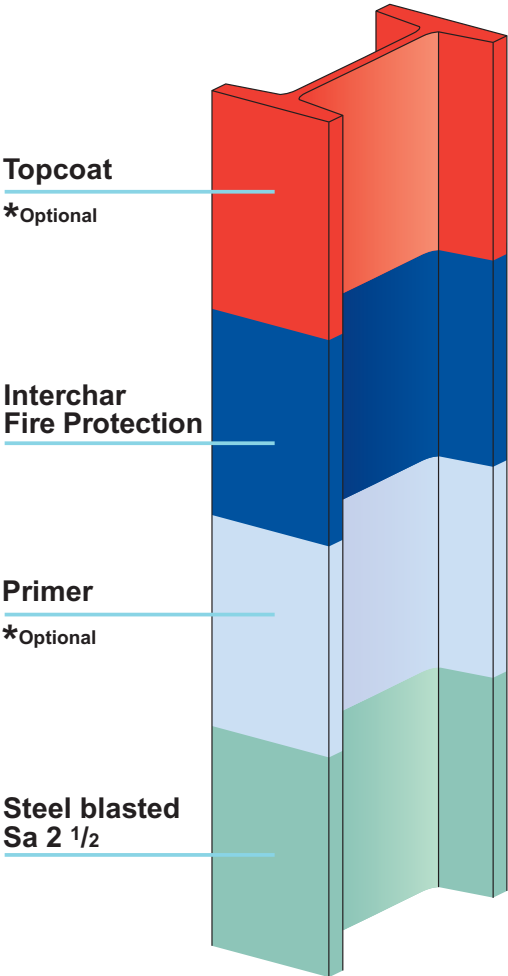
International Paint has significant expertise in assessing the detailed requirements and can assist you in fire engineering your project - ensuring an efficient and effective use of Interchar fire protection.

How are they applied?

Fireproofing coatings can be applied either on-site (at the point of erection) or off-site (in a fabrication or paint shop) - Interchar coatings have been specifically formulated as fast drying, tough coatings to be applied off-site. International Paint recommends the use of off-site application of fire proofing materials for the following reasons:

1. Fabrication and paint shops are controlled environments with established and documented quality control procedures coupled with skilled and experienced operators - International Paint believes that coatings designed to provide such critical protection should be applied under these carefully controlled conditions.

2. On-site application of materials is costly - the requirement to scaffold and seal off areas during spraying should be more expensive than a controlled offsite process. During onsite application it is also more difficult to control the applied thicknesses which can lead to both over and under application problems.
3. On-site application can be disruptive to other trades, leading to project delays, which in turn can impact the return from the investment. Less trades involved at the construction site also reduces Health and Safety considerations.
4. Off-site application allows for the complete process to be completed prior to site delivery.
5. Off-site application can facilitate earlier access to the building as it reduces the amount of on site work required.
6. Interchar coatings are typically applied at a thickness between 1-8 mm and do not impact the overall shape of the steel, allowing for intricate and architecturally innovative designs.



★ Products within the Interchar range can offer the opportunity to eliminate the need for both primer and topcoat, saving time and money.