



# Promat DURASTEEL®

## Fire, Blast and Impact Protection for the Power, Energy, Oil and Gas Sector



[www.promat-industry.co.uk](http://www.promat-industry.co.uk)



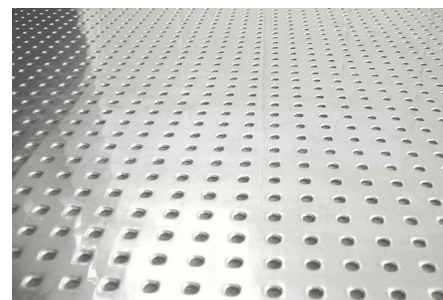
The effects of fire, blast and impact can be devastating, but with a properly designed and installed fire safety and protection system in place, the effects can be managed and minimised.

Effective fire, blast and impact protection is essential in the energy, power generation/ distribution sector as the consequence of something going wrong could lead to a catastrophe.

Promat DURASTEEL® systems provide the following proven and tested benefits to

those specifying products for fire, blast, and impact protection within the sector:

- Protection and safe evacuation of employees
- Protection to ensure minimal disruption of vital and life-saving electrical and power services to the financial, medical, government, and business sectors as well as to the public
- Protection of commercial, industrial and residential buildings
- Protection of surrounding areas and the environment



## Product Construction

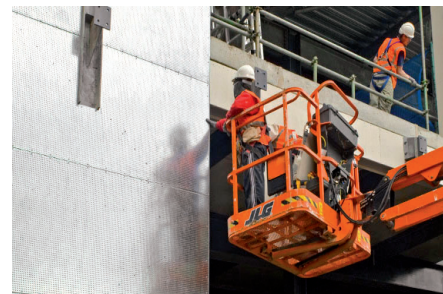
Able to withstand high impact and blast pressures and maintain structural integrity, offering advantages over blockwork walls which can fail under high impact due to failure of mortar joints.

## What is Promat DURASTEEL® ?

Promat DURASTEEL® is a fully certified and tested fire protection board. It is constructed as a composite panel of fibre-reinforced cement with punched steel sheets mechanically bonded to both outer surfaces. This delivers the strength and resistance required to withstand high impact and blast pressures, maintain structural integrity and provide 4 hours of fire protection.

It has been used successfully across the construction industry for many years and is the preferred choice for specifiers and project managers responsible for fire and blast applications in the power and energy sector due to its flexibility and modular nature.

- UK Manufactured to independently accredited ISO 9001 quality, ISO 14001 environmental and OHSAS 18001 health and safety management systems
- Tested with a range of service penetrations and fire doors
- CERTIFIRE accredited
- Licensed installer network with full Certificate of Conformity for every installation
- Insurance industry recognition



## Approved Licensed Installer Network

Every installation is issued with a Certificate of Conformity and carried out by an expert licensed installer with transportation sector experience.



## A Product for all Seasons

High impact and moisture resistance means installations are unaffected by falling items during a fire or from adverse weather conditions.



## An Adaptable System

Can also be used for blast ceilings; performance is maintained even when sprinkler systems or high-powered firefighters' hoses are activated.

Technical Data	
Fire rating	Classed as 'non-combustible' to BS 476: Part 4: 1970 and A1 to Clause 10 of BS EN 13501-1:2007 and can provide 4 hours of fire protection. Classified from EI30 to EI240 according to Clause 7.5 of BS EN 13501-2:2007 +A1 2009
Blast resistance	Tested from 0.3 to 2 bar over pressure and impact resistant to 4000J after 3 hour fire test in accordance with DIN 4102 Parts 2 and 3 requirements
Hydrocarbon fire resistance	Lloyds Approved H0 to H120 capable of maintaining fire resistance post-blast
Hose stream resistance	Tested to a 3 bar pressure hose (ASTM E119)
Acoustic characteristics	Sound reduction index of 29.9 bB
Thermal conductivity	0.55 W/Mk at 20 deg C (BS 874)

More detailed technical data is available on request.

It is a tested and proven solution to UK, EN and International standards (inc. ASTM), suitable for use in walls, doors, stairwells, for ducting and ceiling applications, as a stand-alone barrier or blast wall, and also for cable protection. Its unique features and benefits combine strength, impact, blast resistance, and durability with exceptional fire resistance:

- A maintenance-free 'fit and forget' system providing quick, adaptable, and simple installation both internally and externally
- Slim, lightweight, and space-saving

profile, requiring no foundations and suitable for retro-installation; unlike plasterboard or blockwork solutions

- Fire performance remains unaffected even when wet or from firefighters' hoses or sprinkler systems, leaving boards still able to perform even during a fire
- Fully demountable and has 40 years of proven service life
- Emits minimal smoke or toxic gas during a fire
- Low sound transmission and good acoustic insulation performance
- Mechanical and seismic vibration resistant



Promat DURASTEEL® is commonly used for the safety and security of energy and power generation/distribution plants. It is suitable for both new and upgrade projects in:

- Power stations and electrical substations
- Oil rigs and offshore platforms
- Petrochemical plants

Promat DURASTEEL® systems protect personnel, facilities, structures and equipment

## Power Stations and Electrical Substations

Due to the processes that take place, the potential amount of oil or gas, and the variety of combustible materials on-site power stations are considered to be of high risk. Even a fire or blast within one area of a power station can significantly reduce or cease operation of the entire station for weeks.

The resulting damage to property, services, the environment or life could be horrific, so implementing the highest level of fire and blast protection is vital. Promat DURASTEEL® is a proven system solution in worldwide power facilities.

Transformers are a vital part of electrical distribution but are dangerous due to the quantity of oil they contain and their contact with high voltage elements. They can explode or catch fire without warning.

Multiple adjacent transformers are often found on-site and this can lead to a total loss

## Oil Rigs and Offshore Platforms

The lightweight nature and strength of Promat DURASTEEL® combined with its resistance to hydrocarbon fire, blast, impact, water and corrosion make it the ideal choice for use on offshore production platforms.

These environments are governed by strict regulations to ensure the highest fire and blast protection possible is provided. They are considered very high risk due to the dangers of working on them and the

## Petrochemical Plants

Conditions at petrochemical plants are considered one of the most dangerous of any working environment with the risk of unprecedented blasts and fires occurring at any time, partly due to the amount of petroleum present and the resulting chance of intense explosions.

It is vital that the highest performing and most durable and effective fire and blast

from the effects of blast, impact, explosion, fire and smoke in hazardous environments. It will also help stop the spread of a fire or explosion and contain it within its original source area; minimising damage, risk to life, disruption, and provide protection to surrounding areas.

All installations are supported by the expertise of the Promat technical team and licensed installer network.

of power distribution if a fire and blast in one creates a 'domino effect'. Promat DURASTEEL® barriers installed between transformers prevent catastrophic damage by isolating the blast and the effects of the explosion, minimising subsequent disruption.

Commercial, industrial buildings and large residential developments have substations with power distribution transformers installed either within the building or in close proximity. Many are critical energy networks and with the implications of a total power failure (for even a few seconds) to the banking, government, transport, defence, hospitals or business sectors, it is clear how vital it is to install a system to maintain power supply, with little or no interruption.

Promat DURASTEEL® systems can also be used to form or house high voltage cables, ceilings, doors, walls, compartment tunnels and ventilation ducts.

variety of hazardous and highly combustible elements present.

Promat DURASTEEL® increases the level of fire protection from blasts and fire in these environments, reducing the effects of incidents in and around facilities of this type and protecting workers by giving them the time and means to escape. A stainless steel version is also available to counter engineers' corrosion concerns.

protection systems are in place to maintain the safety of all plant workers and those close by.

Installing Promat DURASTEEL® ensures that even the greatest of blasts, fires, impacts and heat transfer are contained, and blast barriers help prevent a chain reaction of explosions from one part of the plant to another.



## Helping the Emergency Services

Minimises disruption and damage to facilities and gives the fire services vital planning time to preserve life and property.



## Demountable and Reusable

Ideal during upgrade work or transformer maintenance.



## Offshore Protection

Ideal for use in environments which pose very high risks and are governed by strict regulations.



## Protecting the Environment

An uncontained fire in the power and energy sectors can have devastating effects to the local environment.

# Your dedicated industry partner for fire protection in the power sector

## Total Project Support

Promat are committed to providing the highest level of technical expertise and support from the start of a fire safety project through its completion and beyond. We work with specifiers, architects, clients, project managers and contractors to ensure the appropriate solution is specified. Support services include:

- Dedicated industry-specific specialist advice
- Development of working drawings
- Regular site inspections
- Expert guidance, drawing on the experience of the Promat DURASTEEL® team, gained from years of dealing with projects in the power and energy sector

- Understanding of the regulations – when we say it is proven, we can provide you with a reference point and a tested specification
- CAD drawings and a wealth of relevant technical data, information, accreditations, approvals, test reports and calculation tools
- NBS specification

Our aim is to make your life easier and to supply and install a safe, maintenance-free, robust fire protection system you can rely on.



## Promat DURASTEEL® Licensed Installers

Promat DURASTEEL® is only installed by experienced, fully accredited, licensed installers, who ensure the system is fitted correctly for its intended application.

The client benefits from the extensive experience and expertise Promat has of working on similar projects in the power and energy sector. This gives total peace of mind and complete confidence to the entire project team.

Each system undergoes a thorough check before the completed installation is issued with a Certificate of Conformity demonstrating the commitment of Promat to provide a fully tested and third party accredited 'fit-for-purpose' solution.



DURASTEEL®  
Licensed Installer

**Promat**

## Discuss Your Project

Contact us to discuss how we can assist and support you throughout your fire protection project or to arrange a site survey by one of our specialists.

Our Technical Support Team is available to provide expert assistance.

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