

Promat DURASTEEL® Fire, Blast and Impact Protection for the Transport Sector



www.promat-durasteel.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 particularly important in transportation facilities because of the high volume of foot traffic, potential terrorist threats, and the possible disruption to infrastructure and the economy if a facility is out of operation for a prolonged period of time.

Promat DURASTEEL® systems provide the following benefits to those specifying products for fire, blast, and impact protection within the transport sector:

- Protection and safe evacuation of the public and employees
- Protection of terminals, structures, fixtures and fittings, and luggage
- Protection of operations to ensure minimal disruption to business and the public
- 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 transportation and infrastructure sectors 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.

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



A Fit and Forget System

A maintenance-free system which is fully demountable and has a proven service life of 40 years.



Ducting for Ventilation and Smoke Extract

Promat DURASTEEL® ducting is commonly used in the London Underground.

Promat DURASTEEL® is commonly used for the safety and security of transportation terminals, systems and infrastructure. It is suitable for both new and upgrade projects in:

- Airports
- Rail and metro facilities
- Road tunnels

Promat DURASTEEL® systems protect personnel and equipment from the effects of blasts, impact, explosion, fire and from

Airports

With millions of passengers each year, as well as luggage and cargo, airport operators are duty bound to provide the highest standard of safety to staff, passengers and contractors.

Promat DURASTEEL® is used in most key areas of an airport to help protect people and their belongings, buildings, and information systems. It is typically used as a fire barrier in areas of non-public access in terminal buildings, linings to services tunnels, and corridors. Additionally, it is employed as fire, impact, and blast protection in passenger terminal areas, escape routes, luggage storage, escalator pits, internal

Rail and Metro

Promat DURASTEEL® is lightweight and robust, making it ideal for the external environment of all trackside, station, and rolling stock fire protection requirements. It is also widely used in rail tunnels, inside stations and terminal buildings.

As a proven system solution, already installed in rail and metro facilities throughout the world - including having the prestigious London Underground Approval - it provides protection to ensure the safety of passengers and staff, while reducing the impact of loss of service in the event of fire, blast or impact damage and any rebuild or refurbishment costs and closure time.

Road Tunnels

Promat DURASTEEL® is widely used in road tunnels, where there is risk of a major fire due to the presence of high levels of petrol, oil and power supply. It is also installed in public areas located in close proximity to explosion and fire risks.

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. These are all risks that need to be addressed at transportation facilities.

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

transport systems (such as connecting railways), workshops, shafts, ducts, plant rooms and transformer enclosures.

Systems meet or exceed the most rigorous British and International legislative requirements, helping to ensure the safety of passengers and staff while reducing damage to buildings and minimising subsequent disruption.

It has been successfully specified and installed in many worldwide airport projects; reducing insurance costs and providing high levels of safety.

Systems are used in public and non-public fire risk areas, as well as protecting tunnel walls and below the floors of passenger trains to protect passengers from potential risk.

Promat DURASTEEL® is also used for the protection of building services and for smoke extract or ventilation duct systems. Promat DURADUCT SMT® and LT® ductwork systems can be made to bespoke requirements and are commonly used in London Underground projects.

The highest levels of fire and blast protection are needed in all public and operational risk areas to ensure the human safety.



Helping the Emergency Services

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



An Adaptable System

Suitable for use in walls, doors, ceilings, stairwells, escalator pits, ducting and cable protection - all common in transport projects.



London Underground Approval

It is a proven solution for the safety of passengers and staff in the London Underground network and reduces the impact of loss of service.



Ideal for Road Tunnels

Providing protection in road tunnels throughout the world.

Your dedicated industry partner for fire protection in the transport 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 transportation 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
- RIBA approved CPD training schemes

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 transportation 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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