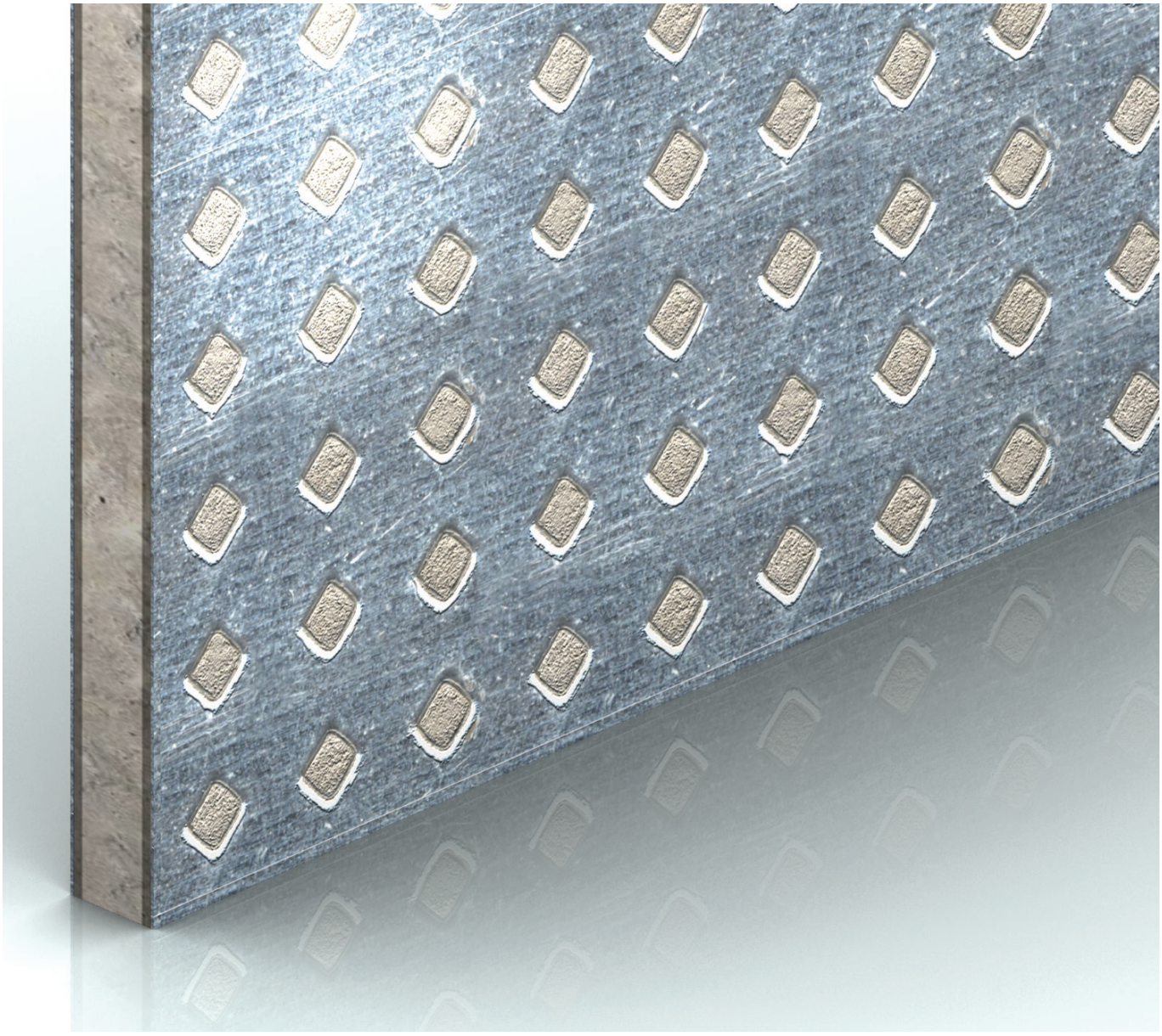
Promat

# DURASTEEL®

## Cement/Steel Composite Board



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Cement/Steel Composite Board

## QUALITY ASSURANCE

Promat products are manufactured to stringent quality control systems to assure that our customers receive materials made to the highest standards.

Operating to these standards means that all activities, which have a bearing upon quality, are set out in written procedures.

Systematic and thorough checks are made on all materials and their usage. Test equipment is subjected to regular checks and is referred back to national standards.

The information given in this data sheet is based on actual tests and is believed to be typical of the product. No guarantee of results is implied however, since conditions of use are beyond our control.

## HEALTH & SAFETY

The board is not classified as a dangerous substance so no special provisions are required regarding the transportation and the disposal of the product to landfill. They can be placed in on-site rubbish skips with other general building waste which should then be disposed by a registered contractor in the appropriate and approved manner.

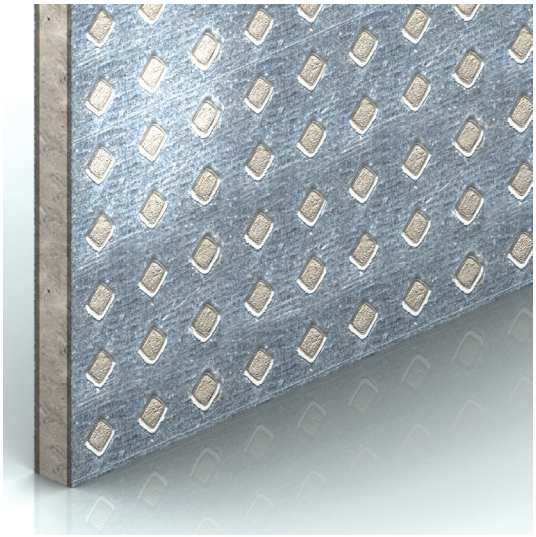
A safety data sheet is available from Promat upon request.

## INTRODUCTION

DURASTEEL® is a composite board manufactured with a fibre reinforced cement core, with outer facings of 0.5mm perforated galvanised steel mechanically bonded to each surface of the core. Other steel finishes such as stainless steel are also available for use where greater resistance to corrosion is required.

DURASTEEL® systems combine lightness, strength, impact resistance and durability with exceptional fire resistance. These systems remain resistant to firefighter hoses leaving the board capable of performing their function should fire services be required to withdraw before a fire is extinguished.

DURASTEEL® systems have been used successfully for many years, including rail and metro projects, military facilities and in commercial, pharmaceutical and petrochemical plants.



## GENERAL TECHNICAL DATA

| | | |
|---|---|---|
| **Designation** | Cement and Steel Composite Board | |
| **Thickness** | mm | 6, 9.5 |
| **Combustibility** | ISO 1182: 2002<br>BS 476: Part 4: 1970<br>AS 1530: Part 1: 1994 | Non-combustible |
| **Surface spread of flame** | BS 476: Part 7: 1997 | Class 1 |
| **Building regulations classification** | | Class 0 |
| **Alkalinity (approximately - core)** | pH | 10 - 13 |
| **Thermal conductance (approximately) λ** | W/m°K | 60 (9.5mm) |
| **Coefficient of expansion (20-100°C)** | m/mK | 15 x $10^{-6}$ (9.5mm) |
| **Nominal moisture content (air-dried)** | % | 6 |
| **Alkalinity (approximate)** | pH | ca. 10 |
| **Thickness tolerance of standard boards** | mm | ±1.0 (9.5mm) |
| **Length x Width tolerance of standard boards** | mm | ±2.0 |

## MECHANICAL PROPERTIES

| | | | | |
|---|---|---|---|---|
| **Flexural strength $F_{rupture}$** | 6mm | Average, dry | $N/mm^2$ | 109 |
| **Flexural strength $F_{rupture}$** | 9.5mm | Average, dry | $N/mm^2$ | 84 |
| **Modulus of elasticity E** | 6mm | Average, dry | $N/mm^2$ | 55000 |
| **Modulus of elasticity E** | 9.5mm | Average, dry | $N/mm^2$ | 40000 |

## APPLICATIONS

- Blast resistant walls
- Impact resistant walls
- Fire resistant walls

## BOARD WEIGHTS

| Thickness (mm) | Length x Width (mm) | Approximate Weight ($Kg/m^2$) | |
|---|---|---|---|
| | | Dry | With approx. 6% moisture |
| 6 | 2500 x 1200 | 15.9 | 16.8 |
| 9.5 | 2500 x 1200 | 19.8 | 21.0 |

All physical and mechanical values are averages based on standard production and tested according to internal procedures. The typical values are given for guidance. The figures can change dependent on the test methods used. If a particular value is of prime importance for a specification, please consult Promat Technical Department.

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