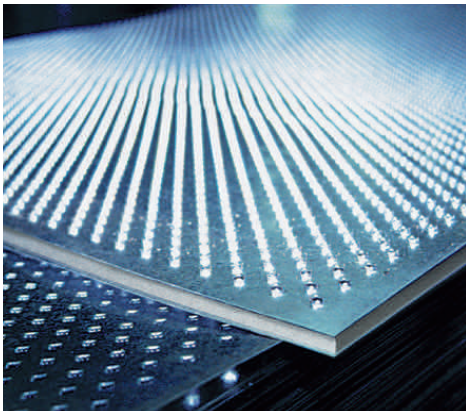
DURASTEEL® Composite Insulating Board 400°C

Material Description

DURASTEEL® is a composite insulating board made of a calcium silicate core reinforced on both sides by galvanised steel covering shells (perforated). The punched lugs produced by the special punching processes are pressed under pressure into the core board, creating the high mechanical strength of DURASTEEL® after the drying process has finished. DURASTEEL® is classified as A1, non-combustible according to DIN 4102.

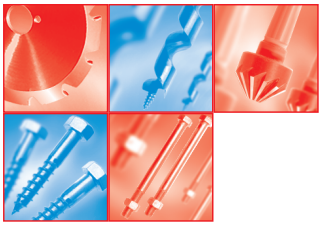
Advantages and Properties

- high mechanical resilience, impact-proof, shockproof, unbreakable
- large-sized, load-bearing
- can be used for structural purposes
- non-combustible
- non-scratch surface
- resistant to water and frost, can be used outdoors
- sound protection



Construction and surface structure of DURASTEEL®

Technical Data			
Product Name		**DURASTEEL®**	
Board thickness	mm	6.0	9.5
Building material class according to DIN 4102		A1, non-combustible	A1, non-combustible
Classification temperature	°C		
- permanent stress		400	400
- short-term up to		1000	1000
Bulk density ρ	kg/m³	2800	2210
Compressive strength	N/mm²	60	60
Bending strength σ	N/mm²	109	84
Tensile strength	N/mm²	32	30
Elasticity module E	N/mm²	55000	40000
Thermal conductivity λ	W/m K	0.55	0.55
Sound insulation	dB	28	30
Board weight	kg/m²	16.8	21.0
Humidity content	%	6	6
Water absorbency	%	14	14



Subsequent Installation and Removal
The modification or reconstruction of buildings often requires the subsequent installation of structural elements. DURASTEEL® can be adapted without difficulty to the existing rooms. It is quickly installed or renewed if necessary (dry construction method).

Working and Processing

DURASTEEL® can be cut into large shapes with guillotine shears or with a water jet. On the building site pieces can be cut out or cut to size using a compass saw with fine-toothed blade. Attachment holes should be made using a metal drill with milling head.

Cutting to Size
When cutting to size, the maximum work-place concentration values for dust generation must be observed. In general dust suction is recommended.

Production of DURASTEEL®-cut sections on the Promat cutting plant

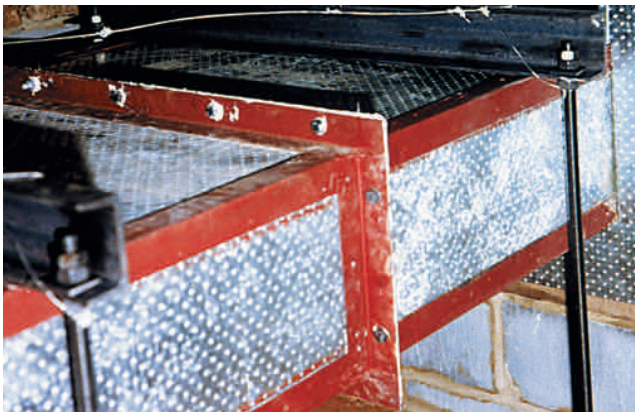
Areas of Application

- Heat shield against cyclic and permanent heat radiation
- Heat shield against metal splashes and flying sparks
- Flue gas ducts
- Fire house lining

Selection Criteria

- Protection against heat radiation, metal splashes and flying sparks
- High mechanical stability and good heat insulation
- Thin boards, large-sized
- Constructively load-bearing applicable

→ 500°C



Lining of a duct

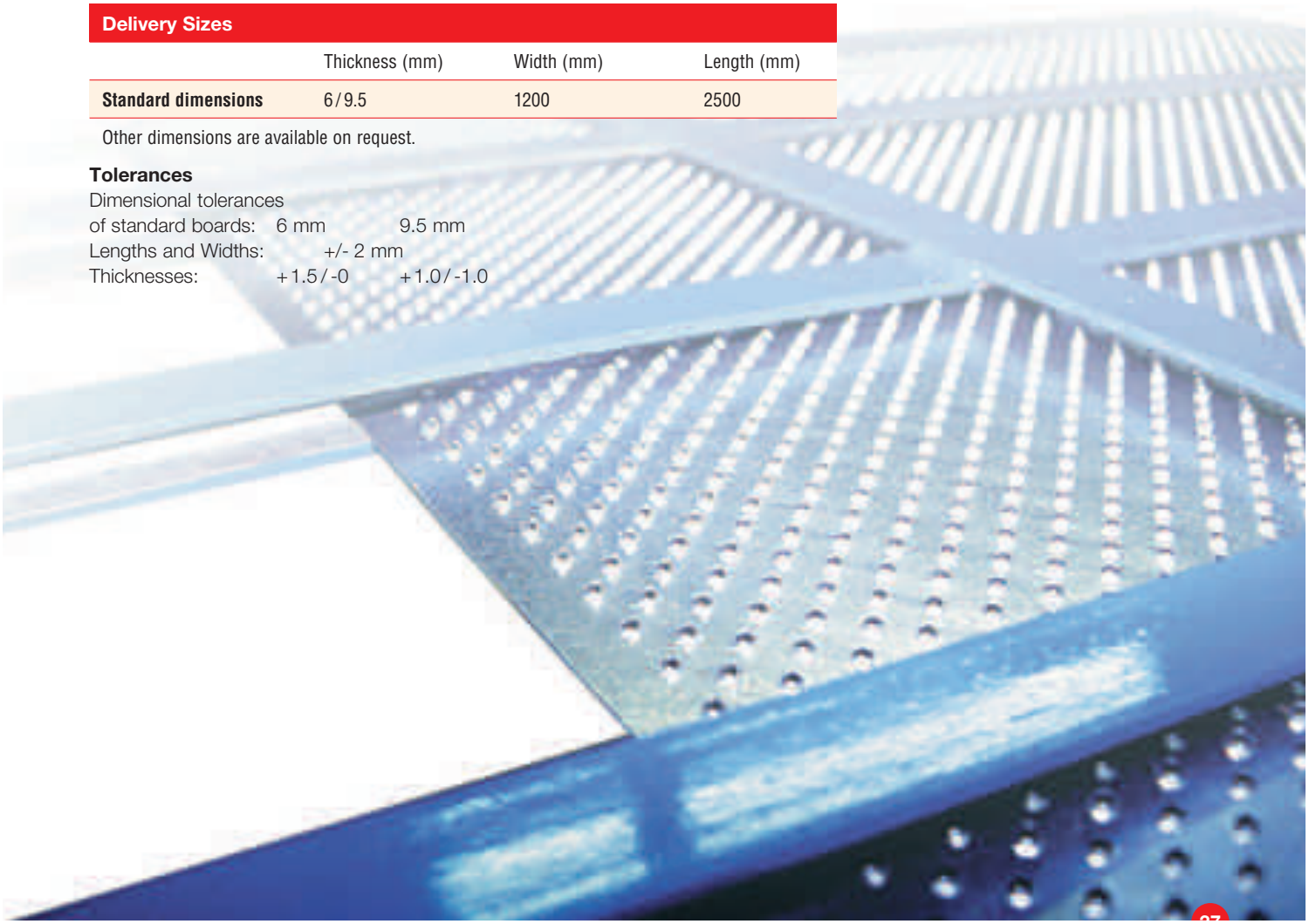
Delivery Sizes

	Thickness (mm)	Width (mm)	Length (mm)
Standard dimensions	6 / 9.5	1200	2500

Other dimensions are available on request.

Tolerances

Dimensional tolerances
of standard boards: 6 mm 9.5 mm
Lengths and Widths: +/- 2 mm
Thicknesses: +1.5 / -0 +1.0 / -1.0



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