

# High Manganese Work Hardening Plate



Brown McFarlane offers the widest range of carbon steel plate ex-stock.

Specification X120 Mn12, DIN 1.3401, also known as Hadfield steel, work hardening steel offering a combination of wear resistance and low temperature toughness.

This grade's chemical composition allows the surface to harden from an initial 200 BHN to 500BHN during severe service conditions. Meanwhile the core hardness remains at the supplied level (200BHN) retaining its ductility and shock loading capability.

## Additional Services;

- Plasma profiling
- Weld prepping
- Rolling

## Applications

- Shot blast booths
- Safes and vaults
- Security doors
- Crusher linings
- Silos, hoppers, chutes
- Truck bodies
- Rail track crossing points

## Key Benefits

- All materials sourced and supplied from Western European mills
- Cut to size
- Fast track mill service available on all products
- Fully accredited quality systems to ISO 19001, 14001 and 18001.
- Delivery worldwide by our international logistics organisation
- Wide thickness range



## Available Sizes

1mm	1.2mm	1.5mm	
2mm	2.5mm		
3mm	4mm	5mm	6mm
8mm	10mm	12mm	15mm
20mm	25mm		
30mm	35mm		
40mm			

## Typical Properties:

- Supply Condition – Brinell Hardness 200 Approx
- Brinell Hardness – up to 500hb approx
- Yield strength – 320 N/mm<sup>2</sup>
- Tensile strength - 880 N/mm<sup>2</sup>
- Elongation 40 %

## Processing:

- Drilling – difficult due to work hardening, recommend 8% cobalt high speed steel types.
- Welding – to be performed with low heat input. The plate is susceptible to distortion at temperatures above 300degrees. Consult your consumables supplier for recommendations.
- Easily cut by Plasma Profiling



**Brown McFarlane**  
Global Steel Solutions



*Quality steel plate suppliers to the world*

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