MAS450 AR Abrasion Resistant Steel (450 Brinell)

1.High Strength Low Alloy Steel

Abrasion Resistant Steel

MAS300 AR | MAS400 AR | MAS450 AR | MAS500 AR

2.MAS450 AR – Masteel's designation for 450 brinell hardness abrasion resistant steel. Used throughout the mining and earthmoving industry, MAS450 AR is Masteel's designation for abrasion resistant steel with 450 brinell hardness.

3.The steel is a martensitic hardenable material with excellent high strength and hardness properties making it an ideal choice for heavy wear environments. Whilst the material cannot be heat treated, it is easy to cut and weld and has good formability.

4.The material is referred to as a 450 brinell hardness steel – the actual hardness range values for this grade relating to thickness are listed below:

|  |  |  |  |
| --- | --- | --- | --- |
| Grade | Product | Thickness (mm) | Hardness Range (HBW) |
| MAS450 AR | Cut Lengths | 3.0 – 6.4 | 420 – 500 |
| MAS450 AR | Heavy Plates | 6 – 60 | 420 – 500 |

5.We can supply MAS450 AR from stock for distribution to clients worldwide. Please refer to the chemical and mechanical properties below:

Chemical Composition

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Grade | C | Si | Mn | P | S | Cr | Ni | Mo | B |
| MAS450 AR | 0.26 | 0.7 | 1.70 | 0.025 | 0.015 | 1.00 | 0.70 | 0.5 | 0.005 |

Content % max unless otherwise stated. Aluminium and can titanium additionally used as a micro-alloy material.

6.Mechanical Properties

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Grade | Yield Strength MPa | Tensile Strength MPa | Elongation A | Impact Strength Charpy V 20 J |
| MAS450 AR | 1200 | 1450 | 8 | -40°C |

Typical values based on 20mm plate thickness

(Please note: the technical information above is for guidance only – for exact specifications please check with our Sales Team)

7.For information about MAS450 AR abrasion resistant steel or to receive a competitive and detailed quotation please contact us.