

Algoma AR225 Plate

AR225 is an abrasion-resistant plate engineered for high wear resistance. It offers moderate hardness and durability, making it ideal for applications in construction, mining, and material handling where components face wear-intensive conditions.

WELDABILITY

Low hydrogen electrodes (E90XX, E100XX) are suitable, but weld metal vanadium content should not exceed 0.05%. Preheat to 150°C (300°F) for thicknesses up to 12.5 mm (0.5") and 200°C (400°F) for greater thicknesses.

FORMABILITY

Cold forming requires care, with edge preparation and a material temperature above 20°C (68°F). Hot forming at 815°C (1,500°F) is recommended, though it may reduce hardness.

CUTTING

AR225 can be gas cut satisfactorily, but preheating to 260°C (500°F) is recommended to prevent edge hardening, which, if present, may crack if subjected to during fabrication bending or restrained welding conditions.

SPECIFICATIONS

PROPERTIES

Type of Steel	Carbon Steel
End Use	Moderate wear applications
Plate Thickness	0.236" (6 mm) to 1" (25.4 mm), greater thicknesses may be available upon request
Melting Practice	Fine Grain fully killed Practice

CHEMICAL COMPOSITION HEAT ANALYSIS (%)

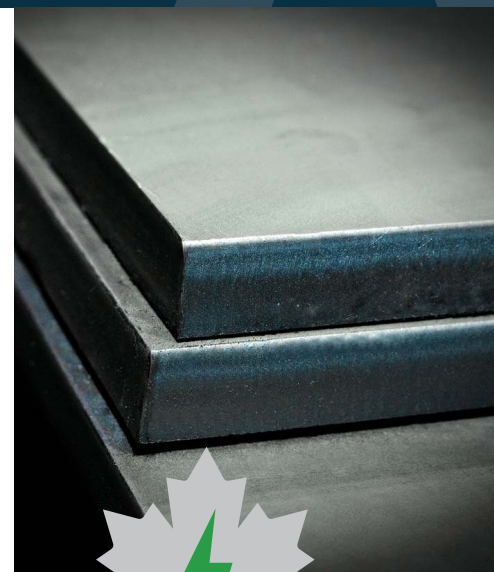
C	0.30 – 0.45
Mn	1.10 – 1.65
P (Max)	0.025
S (Max)	0.025
Cr	0.10 ¹
Mo	0.10 ¹
Si	0.15 – 0.35
Cu	0.10 ¹
Ni	0.10 ¹
Typical C.E. ²	0.63
Condition of Supply	As-Rolled (No Heat Treatment performed)
Typical Surface Brinell Hardness (HB)	0.25" (6.35 mm) Plate Thickness 224 0.5" (12.7 mm) Plate Thickness 218

¹ Residual element. Not intentionally added.

² $C + Mn/6 + (Cr+Mo+V)/5 + (Ni+Cu)/15$

³ Algoma AR225 plate is produced to a specified chemical composition only and no specific mechanical properties are intended or implied. Typical value is shown for information purposes only. Mechanical properties and hardness are not reported. Prior notification is required if hardness must be reported.

Algoma AR225 plate is not intended for structural applications and should not be used as load-bearing members.



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