

Holder Plate

Technical Datasheet

Chemistry

Comparable Standard: ~AISI 4130

Typical	C	Mn	Si	Cr	Mo	S	P
Analysis %	0.28	0.40	0.15	0.60	0.15	0.040	0.035
	0.33	0.60	0.35	0.90	0.25		

Description

Holder Plate is a modified AISI-4130 material specifically designed holder steel for molds and dies. It can be welded easily due to the low carbon content. It is a low alloy steel with high strength, toughness and hardenability, and usually used in quenched and tempered condition.

Characteristics

Good weldability
Excellent machinability

Welding

All common arc welding processes may be used, but preheating to 300°F - 550°F is required to prevent cracking. The preheating interpass temperature depends on the section thickness.

Applications

Automotive parts, Oil and Gas industry, Aerospace

- Frames for Plastic Molds
- Mold Bases for Die Cast Dies
- Bases for Stamping Dies
- Bases for Trim Dies

Physical Properties

Density: 0.285 lbs/in³ (room temperature)

Coefficient of Thermal Expansion	$\frac{70^{\circ}\text{F} - 200^{\circ}\text{F}}{7.0 \times 10^{-6} / ^{\circ}\text{F}}$	$\frac{70^{\circ}\text{F} - 600^{\circ}\text{F}}{7.25 \times 10^{-6} / ^{\circ}\text{F}}$	$\frac{70^{\circ}\text{F} - 800^{\circ}\text{F}}{7.5 \times 10^{-6} / ^{\circ}\text{F}}$
Thermal Conductivity	$\frac{70^{\circ}\text{F}}{202 \text{ Btu/in/ft}^2/\text{hr}^{\circ}\text{F}}$	$\frac{400^{\circ}\text{F}}{209 \text{ Btu/in/ft}^2/\text{hr}^{\circ}\text{F}}$	$\frac{750^{\circ}\text{F}}{216 \text{ Btu/in/ft}^2/\text{hr}^{\circ}\text{F}}$

Mechanical Properties

Room temperature

Heat Treated to 248-302 BHN (24-32 HRC)

Yield Strength	Tensile Strength	Elongation	Reduction Area
100 KSI	125 KSI	17%	35%

Delivery Condition

Supplied in a pre-heat treated condition 269-321 BHN (28-34 HRC)

General Note

All statements regarding the properties or utilization of the materials or products mentioned are for the purpose of description only. Guarantees regarding the existence of certain properties or a certain utilization are only valid if agreed upon in writing.

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NORTH AMERICAN DISTRIBUTION

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