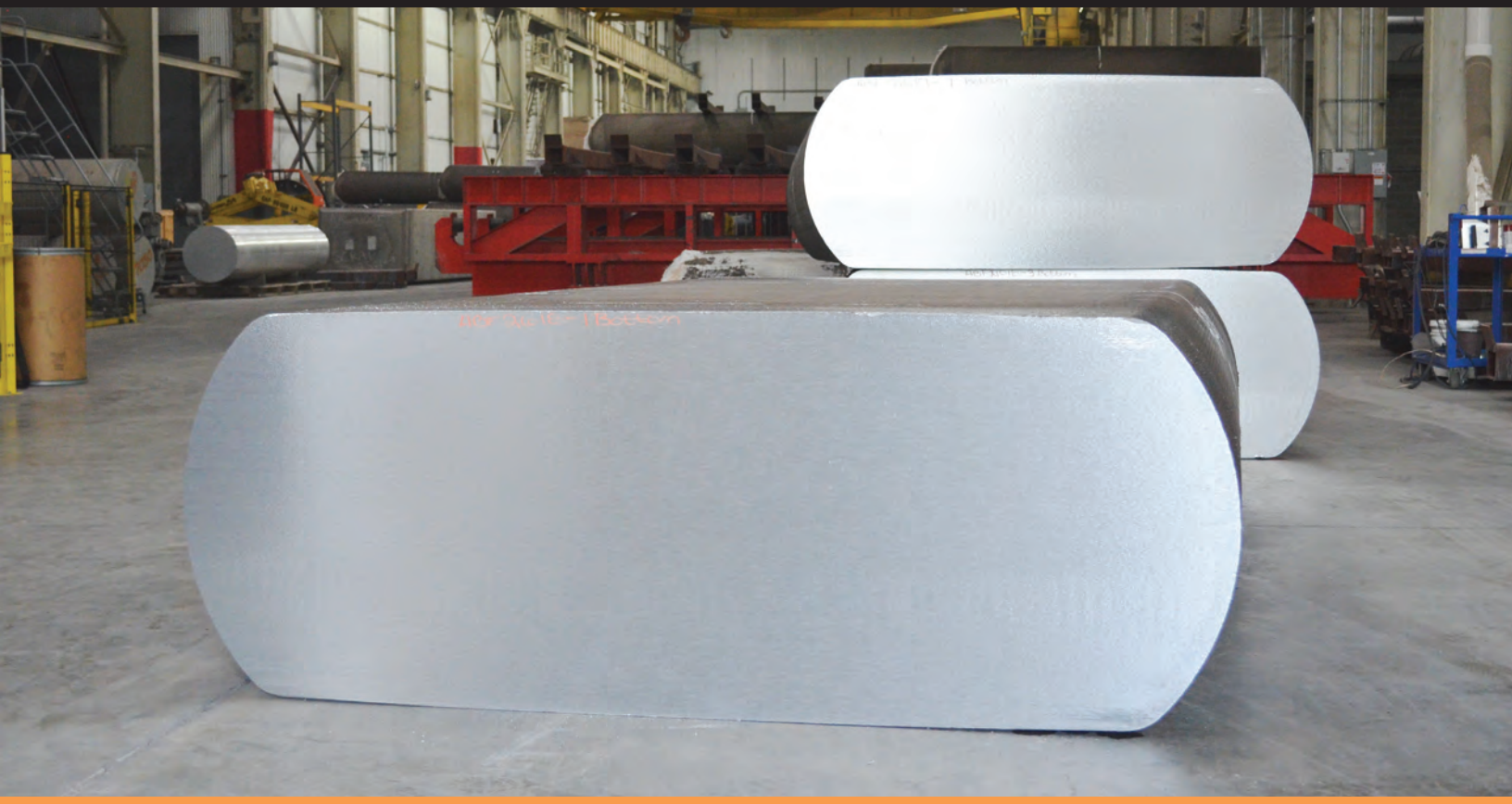


ELLWOOD | Aluminum Product Line

ELLWOOD

YOUR METALS PARTNER, FROM MELT TO DISTRIBUTION

ESM-USA-Sales@elwd.com

800.932.2188

ALUMINUM MATERIAL TYPES

6061 T6
- T6 refers to the temper or degree of hardness achieved by precipitation hardening
- Good strength-to-weight ratio and is heat treatable
- Great formability and weldability
- Used for engineering and structural applications, boats, furniture, and more

6061 T651
- Heat treated and stress relieved
- Generally suited for low pressure applications including large blow molds, RIM molds, and structural foam molds
- Excellent thermal conductivity but relatively low strength and surface hardness

6061 T652
- Alloy condition created by heat treatment and pre-stretching in process
- Stress relieved by compressive deformation and then artificially aged

6061 T6511
- Medium strength extruded material
- Toughness and great corrosion resistance
- Used in floors, ramps, and stairs

EllCast®2 Mold Plate – Alloy 2618
- Highly ductile alloy features exceptional strength and good corrosion resistance properties
- Heat treatable for strength at elevated temperature
- Typically used in aerospace and defense applications

5083 Aluminum Tooling Plate or CTJ
- Precision machined cast aluminum plate that has a milled top and bottom surface
- Excellent machinability, weldability, and corrosion resistance
- Very good etching properties and hard anodizing properties

QC1O™
- High-strength aluminum mold plate specially developed for the injection mold market
- Combines highest strength and hardness by thickness for any aluminum mold product and maintains very high thermal conductivity
- Low quench sensitivity so it has uniformity through thickness and hardness up to 24 inches in size
- Very good stability when machining
- Superior corrosion resistance for a 7xxx series mold alloy

EllCast®5 Mold Plate – Alloy 5083
- Premium quality aluminum alloy sold in a ready-to use condition
- Stock available in either cast mold plate or precision machined cast plate
- Highly engineered aluminum alloy that requires no stress relieving after machining

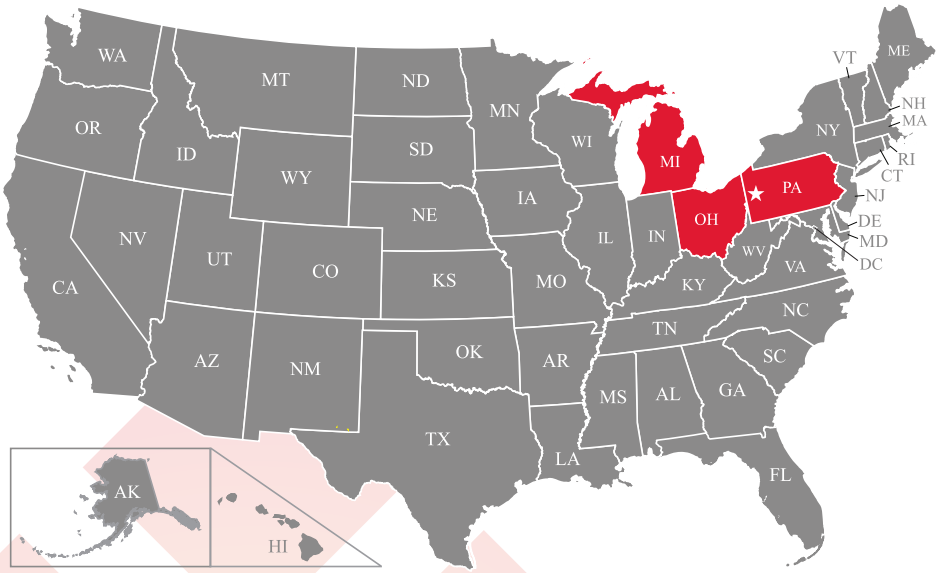
7075
- Alloy that is used in the automotive, aircraft, and aerospace industries due to its high strength, low density, thermal properties, and ability to be highly polished
- Widely used in mold tool manufacturing

7021
- High strength aluminum cast product
- Can be used for blow, compression, RIM, RTM, thermoforming molding, as well as other applications

Product Line	Description	Hardness (BHN)	Yield Strength (KSI)	Tensile Strength (KSI)	Elongation	Rolled Plate	Forged Plate	Extruded Shape	Cast Block	Thickness	Max Width	Weldability	Machinability	Polishability	Corrosion Resistance
QC10™	High Strength	150 - 170	65 - 78	74 - 81	5 - 15%	X	X			1" - 24"	60.5"	B	A	Very Good	B
EllCast®5 Mold Plate-5083	Medium Strength	72	18	40 - 44	10 - 20%				X	1" - 48"	94"	A	B	Very Good	A
6061 T651	Medium Strength	95	45 - 48	39 - 45	11 - 14%	X	X			1" - 16"	60.5"	B	C	Good	A
6061 T652	Medium Strength	95	26 - 30	18 - 42	11%	X	X			8" - 16"	60.5"	B	C	Good	A
6061 T6	Medium Strength	95	29 - 33	17 - 38	9 - 11%	X	X			1" - 18"	60.5"	A	C	Good	A
6061 T6511	Medium Strength	95	36 - 40	20 - 45	17%			X		6061 (T3511) Special Order		A	C	Good	A
7075	High Strength	150	52 - 81	67 - 83	11 - 14%	X				1" - 8"	60.5"	C	B	Very Good	C
7021	High Strength	110 - 120	42 - 49	46 - 55	2.5 - 4.5%				X	1" to 23"	79.5"	C	A	Very Good	C
5083 Aluminum Tooling Plate	Medium Strength	70	18	40 - 44	12 - 15%				X	1" - 5"	85.5"	A	B	Very Good	A
EllCast®2 Mold Plate-2618	High Strength	75	20	39	12 - 16%				X	1" - 28"	66"	B	A	Good	B

Values shown are typical and provided for reference only; they do not constitute a specification or guarantee.

Ranges are based on grades: A - Very Good B - Good C - Fair D - Poor



UNITED STATES OF AMERICA
- Sterling Heights, MI
- Stow, OH
- New Castle, PA

CANADA
- Windsor, ON

MEXICO
- Queretaro, MX

- Founded in 1992
- Division of ELLWOOD Group, Inc.
- 5 Distribution Centers in North America
- Leading Processor and Distributor of Aluminum Tool, Mold and Die Steel
- DFARS Material in Stock

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