

# **UNITED STATES OF AMERICA**

- Sterling Heights, MIStow, OH
- · New Castle, PA







Aluminum Product Line





- · 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















ESSsales@elwd ess.elwd.com





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# **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

# EllCast2™ 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





# 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

## EllCast5™ 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,

Can be used for blow, compression, RIM, RTM, thermoforming molding, as well as other applications

#### 5083 ATP 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

Product Line	Description	Hardness (BHN)	Yield Strength	Tensile Strength	Elongation	Rolled Plate	Forged Plate	Extruded Shape	Cast Block	Thickness	Max Width	Weldability	Machinability	Polishability	Corrosion Resistance
			(KSI)	(KSI)											
QC10™	High Strength	150 - 170	65 - 78	74 - 81	5 - 15%	×	×			1" - 24"	60.5"	В	A	Very Good	В
EllCast5™ Mold Plate-5083	Medium Strength	72	18	40 - 44	10 - 20%				×	1" - 48"	94"	^	В	Very Good	Α
6061 T651	Medium Strength	95	45 - 48	39 - 45	11 - 14%	×	×			1" - 16"	60.5"	В	C	Good	A
6061 T652	Medium Strength	95	26 - 30	18 - 42	11%	×	×			8" - 16"	60.5"	В	С	Good	А
6061 T6	Medium Strength	95	29 - 33	17 - 38	9 - 11%	×	×	Market		1" - 18"	60.5"	A	C	Good	A
6061 T6511	Medium Strength	95	36 - 40	20 - 45	17%			×		6061 (T3511) Special Order		А	С	Good	А
7075	High Strength	150	52 - 81	67 - 83	11 - 14%	X				1" - 8"	60.5"	С	В	Very Good	C
7021	High Strength	110 - 120	42 - 49	46 - 55	2.5 - 4.5%				×	1" to 23"	79.5"	С	^	Very Good	C
5083 ATP	Medium Strength	70	18	40 - 44	12 - 15%				×	1" - 5"	85.5"	A	В	Very Good	A
EllCast2™ Mold Plate-2618	High Strength	86	35 - 54	55 - 64	5 - 10%				×	1" - 28"	66"	В	A	Good	В