

ExELL 7000 Aluminum Cast Mold Plate



ELLWOOD
SPECIALTY
STEEL



CHARACTERISTICS

ExELL 7000 Series Cast Aluminum Mold Plate is an aluminum alloy with high mechanical strength and dimensional stability. A homogeneous, low porosity, consistent hardness alloy it is well suited for toolmaking and structural applications. Supplied in the solution treated, age hardened, and stress relieved condition.

ExELL 7000 Series Cast Aluminum Mold Plate benefits include:

- * Increased Hardness
- * High mechanical strength
- * Dimensionally stable
- * High thermal conductivity
- * Easy machining
- * Good for polishing or etching

PHYSICAL PROPERTIES

Density	0.101 lb/in ³
Coefficient of thermal expansion	12.8 x 10 ⁻⁶ /in ·°F
Thermal conductivity (@ 68° F)	82 Btu/ft·hr/ ft ² °F
Electrical conductivity (@ 68° F)	30% IACS
Elastic Modulus	10,100 ksi





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TYPICAL MECHANICAL PROPERTIES

Ultimate Tensile (ksi)	Yield Strength (ksi)	Brinell Hardness	Elongation %
46 - 55	42 - 49	110 - 120	2 - 4

ExELL 7000 Aluminum Cast Mold Plate

is available and stocked in the following sizes:

5" to 22" Thick x 48.5" & 60.5" Wide x 120" Length

APPLICATIONS

- Plastic injection molds
- Blow molds
- Thermoforming
- Machine bases and mounting plates
- Compression molds
- Resin injection molds
- Resin transfer molds

MOLD DESIGN

Molds designed with 7000 cast plate should see long-term temperatures of 250° F maximum and short-term 280° F maximum ; this applies to the mold not plastic resin.



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