

# BUS PLATE® THERMAL & ELECTRICAL CONDUCTIVITY PLATE AA1370-50



**DESCRIPTION OF BUS PLATE®** 

Fabricated from prime aluminum cast ingots

Excellent Dimensional Stability

Excellent Weldability

Electrical Conductivity 61.5% IACS

Sawed plate and block technology (Derived from PCP Canada ALCA5<sup>®</sup> and MAX5<sup>®</sup>)

Very High Thermal and Electrical Conductivity

## **APPLICATION OF BUS PLATE®**

Best Aluminum for Electrical Applications AA1370-50 ALLOYS > 99.7% PRIME METAL / MINIMIZES ENERGY LOSS



	Thickness (Max.)	Widths (Max.)	Lengths (Max.)
PLATE SIZES AVAILABLE*	0.25" to 4.00"	Up to 76.5"	Up to 354"
BLOCK SIZES AVAILABLE*	Up to 29.25"	Up to 76.5"	Up to 354"

\*DEPENDING ON QUANTITY REQUESTED AND AVAILABLE MATERIAL

## AA1370 IS THE BEST ALUMINUM YOU CAN GET FOR ELECTRICAL APPLICATIONS



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AA1370-50

MPERIA

# DESCRIPTION

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## DESCRIPTION

**BUS PLATE®** is fabricated from prime aluminum cast ingots that are heat treated. This product is characterized by an excellent dimensional stability after machining and an excellent weldability. Moreover, it offers very **high thermal and electrical conductivity**. This sawed plate and block technology was derived from PCP Aluminium **ALCA5®** and **MAX5®** which are sold world wide!

## **APPLICATIONS**

This product is especially suitable for electrical applications. It is used for bus bar manufacturing that specializes in the transport and the distribution of electricity. PCP Aluminium developed this product to meet complex electrical requirements in order to minimize energy loss. This product is available in a variety of sizes.

## PRECISION

**BUS PLATE**<sup>®</sup> cast products offer precision in all dimensional specifications. Including, excellent flatness. The inherent stability of the cast heat treated ingots is reflected in the end product.

#### PLATE SIZES AVAILABLE

Thickness Width Length 0.250" to 4.000" Up to 76.5" Up to 354"

#### **BLOCK SIZES AVAILABLE**

ThicknessUp to 29.25"WidthsUp to 76.5"LengthsUp to 354"

Others thicknesses, widths and lengths may be available upon inquiry. On request, this product may be milled and coated with protective plastic film on the milled sides. Other tolerances may be applicable. CHEMICAL COMPOSITION (Weight-%)

AI	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti+V	В	Ga
99.70	max.	0.10	max.	max.	max.	max.	max.	max.	max.	max.
min.	0.07	0.18	0.01	0.003	0.01	0.003	0.03	0.004	0.006	0.02

## PHYSICAL PROPERTIES (Typical values)

Density	0.0975 lb/in <sup>3</sup>
Elastic modulus	10 x 106 PSI
Coefficient of thermal	
expansion (68°F-212°F)	13.2 µin/in·°F
Thermal conductivity (68°F)	135 Btu/ft·h·°F
Electrical conductivity (68°F)	61 5% IACS

## MECHANICAL STRENGTH (Typical values)

Ultimate Tensile Strength	12000 PSI
Yield Strength	4000 PSI
Elongation	28%

## **TOLERANCES** (Sawed plate)

Thickness	+/-0.020"
Width and Length	+0.125" / -0.000"
Roughness	≤ 1000 µin
Surface	Precision sawed
Edge	Precision sawed

#### TOLERANCES (Sawed block)

Thickness Width and Length Roughness Surface condition Edge condition +0.125" / -0.000" +0.250" / -0.000" ≤ 1000 μin Precision sawed Precision sawed

The information in this publication does not imply a guarantee of properties or capability for fabrication, assembly or application in particular cases. Design rules presented must be take into account by the user. PCP Aluminium reserves the right to modify this data sheet without prior warning.