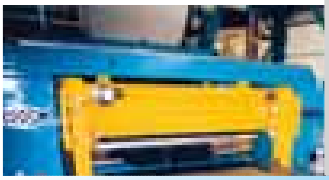
M61

IDEAL MACHINABLE PLATE

WHEN PRECISION COUNTS

flatness
tight tolerance
distortion free
high quality surface finish



HULAMIN

Hulamin Rolled Products
Moses Mabhida road, Pietermaritzburg
PO Box 74 Pietermaritzburg 3200 South Africa
Tel: +27 (0)33 395 6911 Fax: +27 (0)33 342 7811
E-mail: hulamin@hulamin.co.za
Web: www.hulamin.co.za

THE QUEST FOR THE 'IDEAL MACHINABLE PLATE'

In a world where the ultimate machinable plate is demanded and only exceptional quality stands apart, pursuit of excellence by Hulamin has lead to the successful development of M61. A machinable plate of exceptional quality, M61 offers gauge and flatness tolerance to tighter than 0.5AA specifications, and enhanced surface finish and post machining stability.

Hulamin has risen to this challenge by producing and supplying a quality heat treated plate with a proven blend of exceptional attributes that deliver consistent and excellent machinability.

Located in Pietermaritzburg, South Africa, Hulamin has been producing high quality semi-fabricated aluminium products since 1948. This extensive experience has been combined with sophisticated technology in the organisation's recently completed expansion, positioning Hulamin as a highly competitive player in the global 6061 T651 heat treated plate market.

The company employs advanced technology in remelt, hot rolling, solution heat treatment, stretching and surface finishing, expertise that provides all Hulamin's products with a leading edge in quality and performance.

INTRODUCING M61

In its quest to satisfy the requirements of the CNC machines and machine shops worldwide, Hulamin is proud to introduce M61 - a heat treated plate in alloy A6061 T651 that features excellent machinability.

M61 is ideally suited for a wide range of hi-tech applications including precision tooling and components used in the electronic vacuum chamber and hydraulic industries.

"it's about stability"

"it's about flatness..."

HULAMIN'S M61

HAS BEEN DESIGNED TO MEET THE FOLLOWING REQUIREMENTS:

- Is stable, even during intricate machining operations - no wastage of finished components.
- Is a consistent in machinability between plates supplied in any batch - no need to change machine setups.
- Has a high standard of surface finish. The surface of the plate is aesthetically pleasing, and needs no further grinding, linishing and anodises well.
- Has tight tolerances - maximises the use of metal for the production of machined components.

This all adds up to a product that is a cost effective solution for a plate that can be machined accurately.

M61

INGOT CASTING

HOT ROLLING

CUT TO LENGTH

SOLUTION HEAT TREATMENT

STRETCHING

SAWING

ARTIFICIAL AGEING

SURFACE LINISHING

FINAL INSPECTION

IDENTIFICATION MARKING, PACKING

M61 - THE PRODUCT

1. Flat Surface

M61 undergoes levelling and a controlled stretch operation, ensuring plates with superior flatness and stability.

2. Machinability

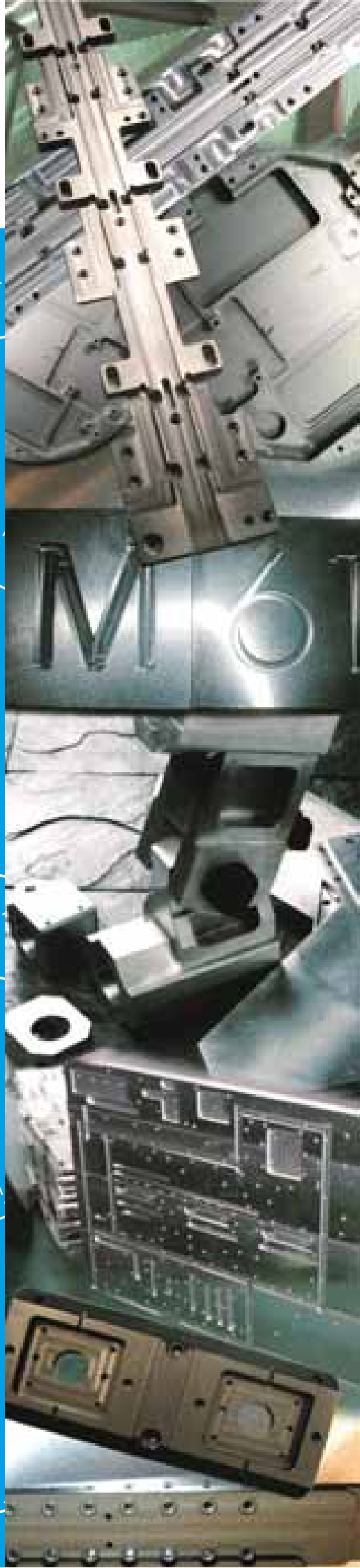
The M61 plate is easily cut, punched, drilled and machined using standard machining and job shop equipment. The plate is manufactured to maintain stability after precision machining operations.

3. Surface Finish

M61 is supplied with a linished surface finish, which eliminates the need for any further machining or grinding. Tests have proved that this linished surface anodises well.

4. Dimensional Tolerance

M61 is rolled to tight tolerances guaranteed to 0.5AA specification.

MECHANICAL AND PHYSICAL PROPERTIES		
PROPERTIES	**METRIC UNITS**	**IMPERIAL UNITS**
Ultimate Tensile Strength (min)	290 Mpa	42 ksi
0.2% Yield Strength (min)	240 Mpa	35 ksi
Elongation (min)	10%	10%
Typical Fatigue Strength	95 Mpa	16 ksi
Typical Hardness Brinell	95 HB	95 HB
Thermal Conductivity	167W/m°C	1160 btu - in/ft^{2}hr°F
Electrical Conductivity	43% IACS	43% IACS
Modulus of Elasticity	69GPa	10 gsi
Identification Marking	In accordance with Aluminium Association	

OTHER CHARACTERISTICS	
Corrosion Resistance	Good
Weldability	Good
Formability	Good
Machinability	Good
Anodising	Good
Brazeability	Good