



**PT DAMAI ABADI**  
Aluminium Extrusion Industry  
I N D O N E S I A

COMPANY PROFILE

# Certificate of Approval

## **PT. DAMAI ABADI**

is certified as an Approved Applicator to coat

## **Corro-Coat PE-F Facade**

A product from Jotun Indonesia  
- Powder Segment

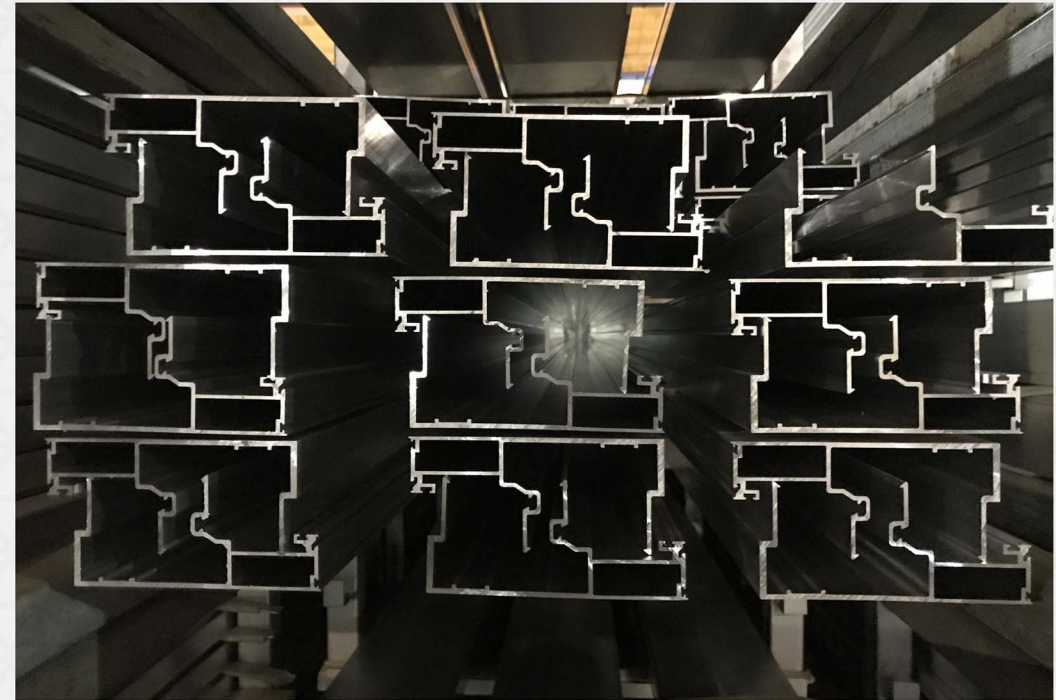
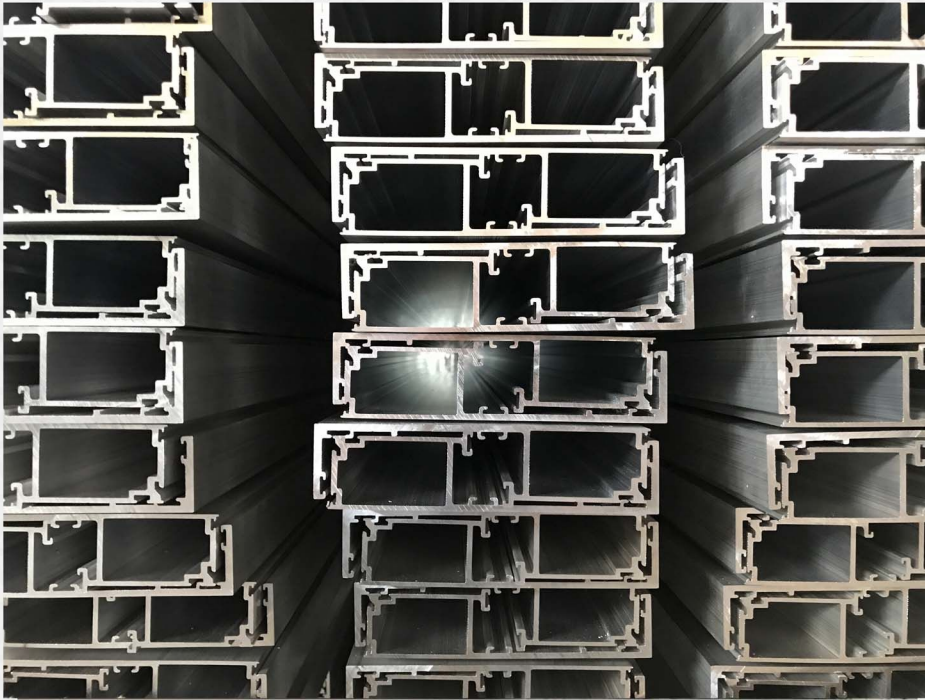
This company fulfils the requirements set by Jotun Indonesia – Powder Segment for pre-treatment and application of powder coatings. These include having the necessary equipment, process controls and technical knowledge to comply with Jotun Indonesia – Powder Segment standards.

A handwritten signature in blue ink, appearing to read "Dama-5", written over a horizontal blue line.

**PT. JOTUN INDONESIA**  
CIKARANG - INDONESIA

Authorised Signatory  
**Jotun Indonesia**

Valid until: 09 September 2018



## Overview of the PT Damai Abadi

**Major Business** : Manufacturing of aluminium extrusion profiles for buildings materials, automotive, electrical components, furniture and other industrial purposes.

**Main Plant** : — Jalan Sei Mencirim Des Payageli, Deli Serdang, Sumatera Utara, Indonesia, and  
— Balaraja Industrial Estate Jl. Boulevard No.6, Desa Permatang, Kecamatan, Tigaraksa, Tangerang- Banten, Indonesia

**Established** : Since 1983

## About PT Damai Abadi

PT Damai Abadi has been serving fabricators, OEMs, and other producers throughout Indonesia since 1983. Having our production lines running 24/7, we have the capability to produce over 30,000 tons of aluminium extrusion annually. Our products are served in many fields, including architectural, electronics, utilities, and thermal management industries.

We take pride in being a leading aluminium extrusion manufacturer, offering high and only high quality aluminium products to our customers.

Through ongoing investment in new aluminium extrusion technologies, we're consistently advancing our capacity and capabilities to meet our customers' need.

## Our In-House Aluminium Extrusion Capabilities

**Extrusion Presses** : 1800 ton, 7" diameter  
1000 ton, 5" diameter  
700 ton, 4" diameter

**Alloys** : 6061, 6063

**Tempers** : T4 / T5 / T6

**Profiles Extruded** : Solid / Semi-Hollows / Hollows  
Multi-Hollows / Heat Sinks

## PT Damai Abadi's Effort To Ensure High Quality

- Understanding specific requirements from customers
- Real-time information system
- Continuous staff training
- Plant auditing program

## Committed To High Quality Aluminum Extrusion

Manufacturing extruded aluminium products that consistently meet our customers' requirements and delivering goods on time is crucial to our aluminium extrusion business. At PT Damai Abadi, our sustainability is not built through commercially acceptable quality standards, but rather on our commitment to deliver our customers with the highest quality aluminium extruded products.





### Standard & Customized Aluminium Extrusions

With well-trained staffs, up to date machinery and process, PT Damai Abadi is able to produce high quality aluminium extrusion products even in the most demanding industry requirements, at the same time achieving short lead-times even for high complexity aluminium profile shapes.

### Technical Advancement

PT Damai Abadi is continuously expending its manufacturing knowledge and research to support our customers with the latest advancements. Our staffs and engineers gets endless continuous training on aluminium alloys, extrusion methods, aluminium profile tolerances, and quality control strategies. Our company will do whatever it take when it comes to your aluminium extrusions.

## PT. DAMAI ABADI FACILITIES

### In-House Die Shop

Extrusion dies can be custom made to form limitless array of shapes and sizes. It is a steel disk with an opening. In general, dies are separated into three groups; solid, hollow and semi hollow. Combinations of these 3 types of profiles can be incorporated into a single die.

### Smelting Facility

This is the process of mixing pure aluminium with other elements such as magnesium, silicon, manganese or other elements to produce properties such as extra strength or additional corrosion resistance to meet your s pecific needs.

### Aluminium Extrusion Process

With the profile design finalized and the dies prepared, both the billet and die are preheated to their ideal temperature and ready for the extrusion process. The billet is loaded to the cradle and then pushed against the die with high pressure to be extruded.

### Quenching

This is a process to cool down the aluminium profile being extruded. This instant cooling step enables the extrusion to preserve its characteristics, mechanical properties and most importantly ensures even and distortion free product.

### Strecthing/ Cutting/ Aging

Right after the quenching process, the aluminium profile is “stretched” to straighten and correct any twist that may have occurred. This stretching process also acts as a cold work to the extrusion. Conveyors would then shift the profiles to the cutting table to have it cut to their pre-ordered lengths. Depending on the customers’ needs, an aging process may be needed to achieve the elasticity, strength and hardness.



# MANUFACTURING PROCESS

## CASTING PROCESS



ALUMINIUM INGOT



MELTING, CHEMICAL ADJUST



CASTING



BILLET



HOMOGENIZING

## EXTRUSION PROCESS



BILLET HEATING



EXTRUSION



CUTTING



AGING

## SURFACE TREATMENT PROCESS



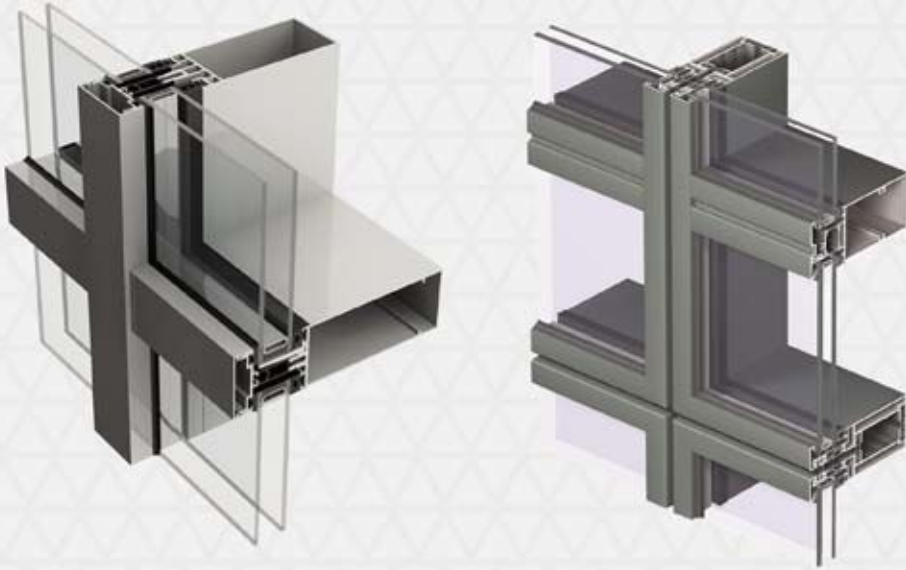
ANODIZING



POWDER COATING

# INDUSTRIES WE SERVE

## ARCHITECTURAL



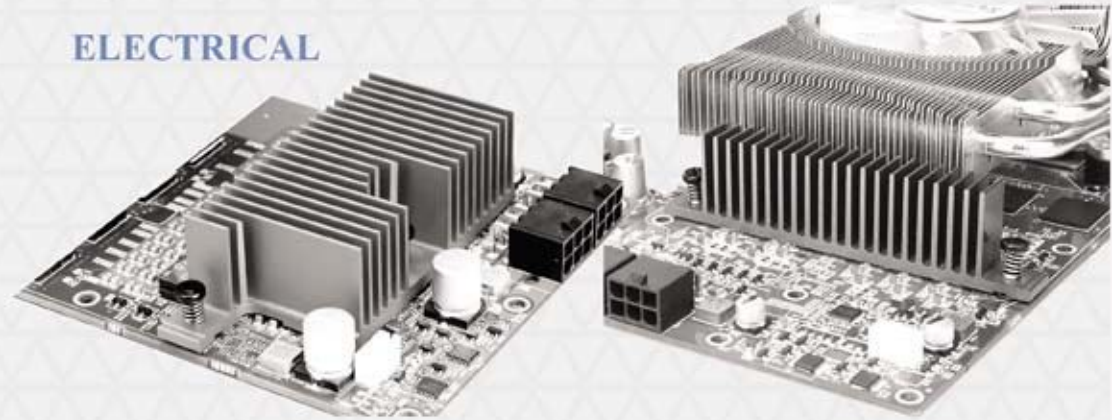
## LADDER



## RIMS



## ELECTRICAL



## INDUSTRIAL



## TRUCK BODY PANEL



## ALUMINIUM ALLOYS

### 6063

Aluminium alloy 6063 is considered a medium strength alloy most commonly used in architectural industries. This type of aluminium alloy is high corrosion resistance, has a good surface finish and can be easily anodized. With the correct temper adjustments, it has good formability. Common applications of 6063:

- Architectural applications
- Window fronts
- Doors
- Tube
- Bar
- Rod

### Properties

Physical Property	Value
Density	2.70 g/cm <sup>3</sup>
Melting Point	655 °C
Thermal Expansion	23.5 x 10 <sup>-6</sup> /K
Modulus of Elasticity	69.5 GPa
Thermal Conductivity	201 W/m.K
Electrical Resistivity	0.033 x 10 <sup>-6</sup> Ω.m
Electrical Resistivity	52% IACS

Mechanical Property	Value
Tensile Strength	130 Max MPa
Elongation A50 mm	16 Min %
Hardness Brinell	25 HB
Elongation A	18 Min %

### Chemical Composition

Spec: BS EN 573-3: 2009

Alloy 6063

Chemical Element	% Percent
Manganese (Mn)	0.0 - 0.10
Iron (Fe)	0.0 - 0.35
Magnesium (Mg)	0.45 - 0.90
Silicon (Si)	0.20 - 0.60
Zinc (Zn)	0.0 - 0.10
Titanium (Ti)	0.0 - 0.10
Chromium (Cr)	0.0 - 0.10
Copper (Cu)	0.0 - 0.10
Other (Each)	0.0 - 0.05
Others (Total)	0.0 - 0.15
Aluminium (Al)	Balance

## ALUMINIUM ALLOYS

### 6061

Aluminium alloy 6061 is a medium to high strength heat-treatable alloy. It is very corrosion resistance and very good weldability (strength reduced in weld zone). With T4 Temper is has good cold formability, however it has limited formability in T6 temper. Thus not very suitable for complex cross sections. It is however very suitable in heavy duty structural use.

Commonly applications of 6061:

- Rail coaches
- Truck frames
- Ship buildings
- Bridges
- Tube
- Transport

### Properties

Physical Property	Value
Density	2.70 g/cm <sup>3</sup>
Melting Point	650 °C
Thermal Expansion	23.4 x 10 <sup>-6</sup> /K
Modulus of Elasticity	70 GPa
Thermal Conductivity	166 W/m.K
Electrical Resistivity	0.040 x 10 <sup>-6</sup> Ω.m

Mechanical Property	Value
Proff Stress	240 Min MPa
Tensile Strength	260 Min MPa
Hardness Brinell	95 HB

### Chemical Composition

Spec: BS EN 573-3:2009

Alloy 6061

Chemical Element	% Percent
Manganese (Mn)	0.0 - 0.15
Iron (Fe)	0.0 - 0.70
Magnesium (Mg)	0.45 - 1.20
Silicon (Si)	0.20 - 0.80
Zinc (Zn)	0.0 - 0.40
Titanium (Ti)	0.0 - 0.25
Chromium (Cr)	0.0 - 0.15
Copper (Cu)	0.0 - 0.35
Other (Each)	0.0 - 0.05
Others (Total)	0.0 - 0.15
Aluminium (Al)	Balance

# Project Reference

Please see below, some of projects that our team have delivered for the past 7 years.

## Highrise Project References

1. Grandhika Hotel
2. Hotel Adimulia
3. Hub Kno (Wing Hotel)
4. Kemang Galery
5. Murni Teguh Hospital
6. Hotel Haniman  
Ubud Padang Tegal - Bali

## Ref Project Private Residence

1. Cemara Asri
2. Graha Helvetia
3. The Palace
4. Taman Polonia
5. Revierview
6. Helios
7. Malibu
8. Komplek OCBC Ringroad
9. Taman Setia Budi
10. Griya Riyatur
11. Hillpark Sibolangit
12. Padang Private Residence
13. Pekanbaru Private Residence
14. Batam Private Residence
15. Palembang Private Residence
16. Bagya City
17. Villa Polonia
18. Royal Sumatera
19. BHR







**PT DAMAI ABADI**  
Aluminium Extrusion Industry  
I N D O N E S I A

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Jakarta Factory :

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