

COPAL[®]

ALUMINIUM SYSTEMS



Prefabricated add-on balcony systems



EN 1090-3
EN 1090-1



QUALITY
ISO 9001



WELDING
ISO 3834-2



ENVIRONMENT
ISO 14001

ECOLOGY, SAFETY, QUALITY

AT ITS HIGHEST LEVEL

COPAL-BALCONY.COM

5 TOP PROS TO CHOOSE ALUMINIUM ADD-ON BALCONY UNITS

1 Easy installation

- The platform can be delivered as an **out-of-the-box** balcony module.

2 Safety

- An add-on balcony unit is **structurally detached** from the building, which eliminates the typical faults found with structurally integrated, cast-in-place balconies, e.g. cracking of the balcony slab.

3 Aesthetic value

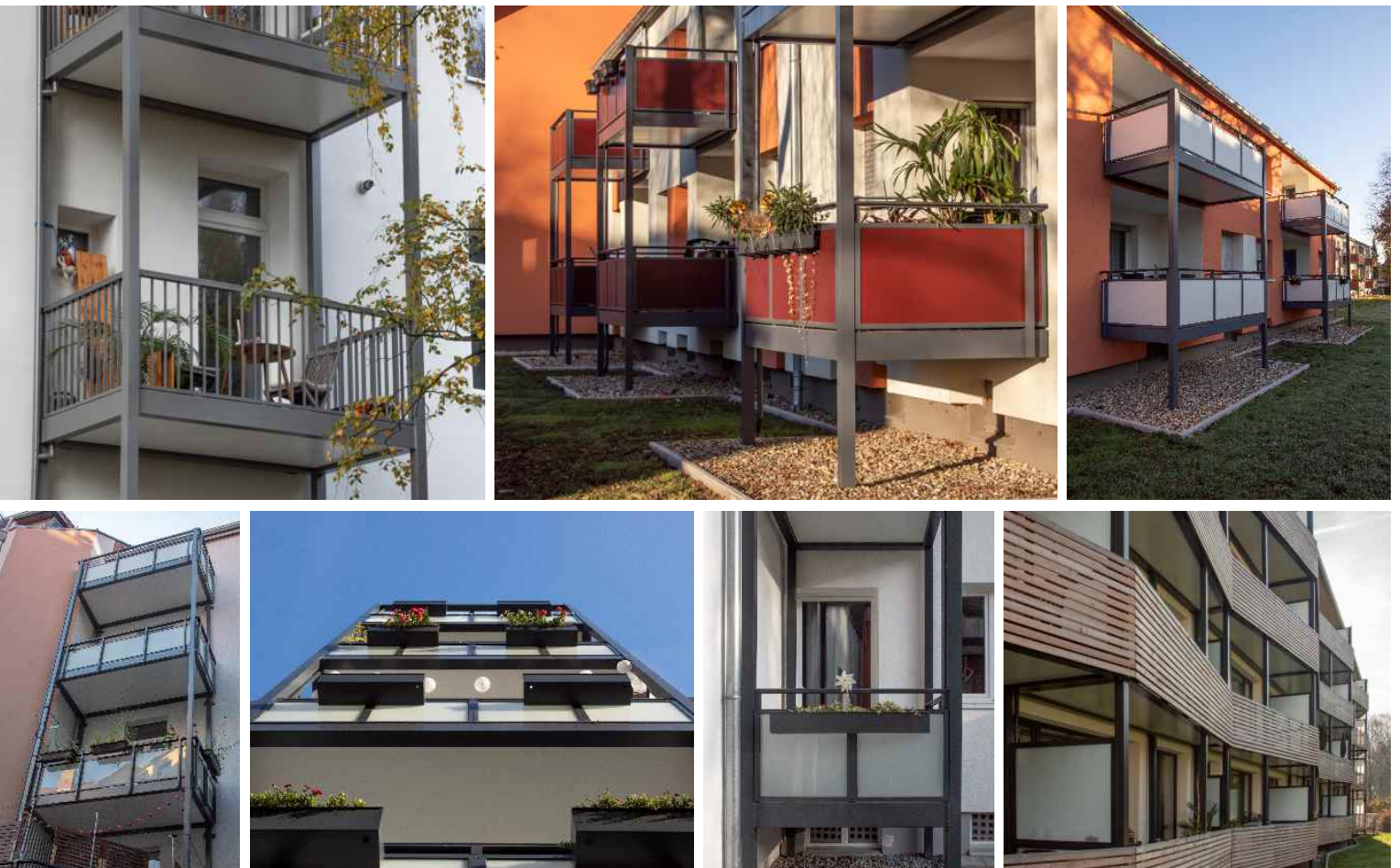
- High quality finish
- A design inspired by current trends in architecture

4 Energy efficiency

- Our unit platforms **do not form thermal bridges** with the building interior

5 Flexibility

- A low cost add-on balcony unit can quickly create a balcony where it was previously impossible to build, expanding the usable floor area



Improved appearance and safety at minimum maintenance costs.

Modern add-on balcony units effectively protect building façades and windows from harmful elements, including rain, frost and snow.

The powder-coated aluminium framework is durable and requires no maintenance or care for years.

The whole unit can be enclosed with cladding, from top to bottom, making it usable in all seasons.

A closed add-on balcony unit also significantly reduces the level of external noise entering the living space.



Improved building energy efficiency

One of the main criteria driving the purchase of an add-on balcony unit is the maximum conservation of energy from residential heating systems.

Energy retrofits of buildings include the removal of cold bridges. Our add-on balcony units feature a self-supporting framework, which does not break the continuity of external thermal insulation layers.

The thermal insulation performance of this solution by Copal is better than the benefits of cantilevered balconies, which require a full-length attachment to the building wall. Cantilevered balcony slabs form a linear cold bridge by breaking the building thermal insulation layer.

This is one reason why Copal's add-on balcony modules are becoming increasingly popular: they do not break the thermal insulation of buildings.

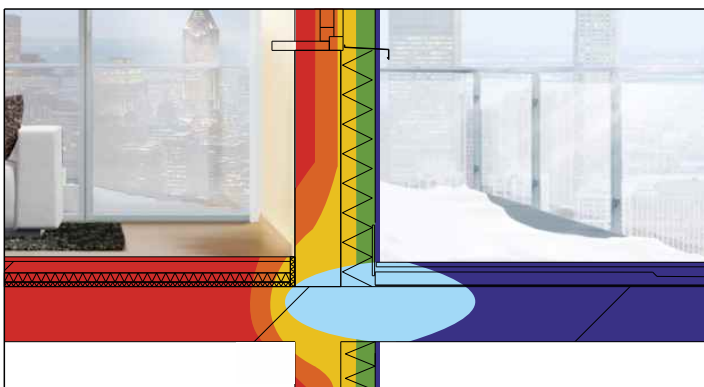


Fig. 1 Traditional balcony structure
The wall thermal insulation is broken.



Fig. 2 Add-on balcony unit
The wall thermal insulation remains continuous.

Structural diagram of an add-on balcony unit

Balcony platforms

- Welded aluminium profile framework
- Floor infill:
 - boards;
 - stone;
 - composite board
- Balcony underside/ceiling: aluminium powder-coated sheet in RAL 9016 Matt

Columns

- Balcony support structure
- Independent structural assembly
- Set in finished pocket footing

Drainage

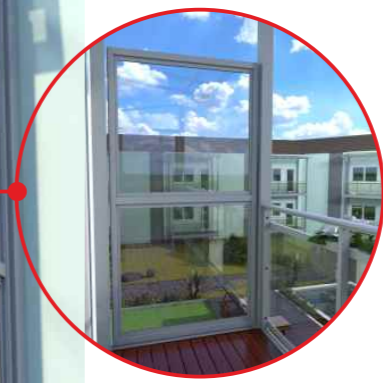
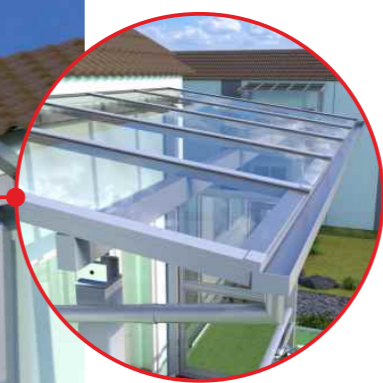
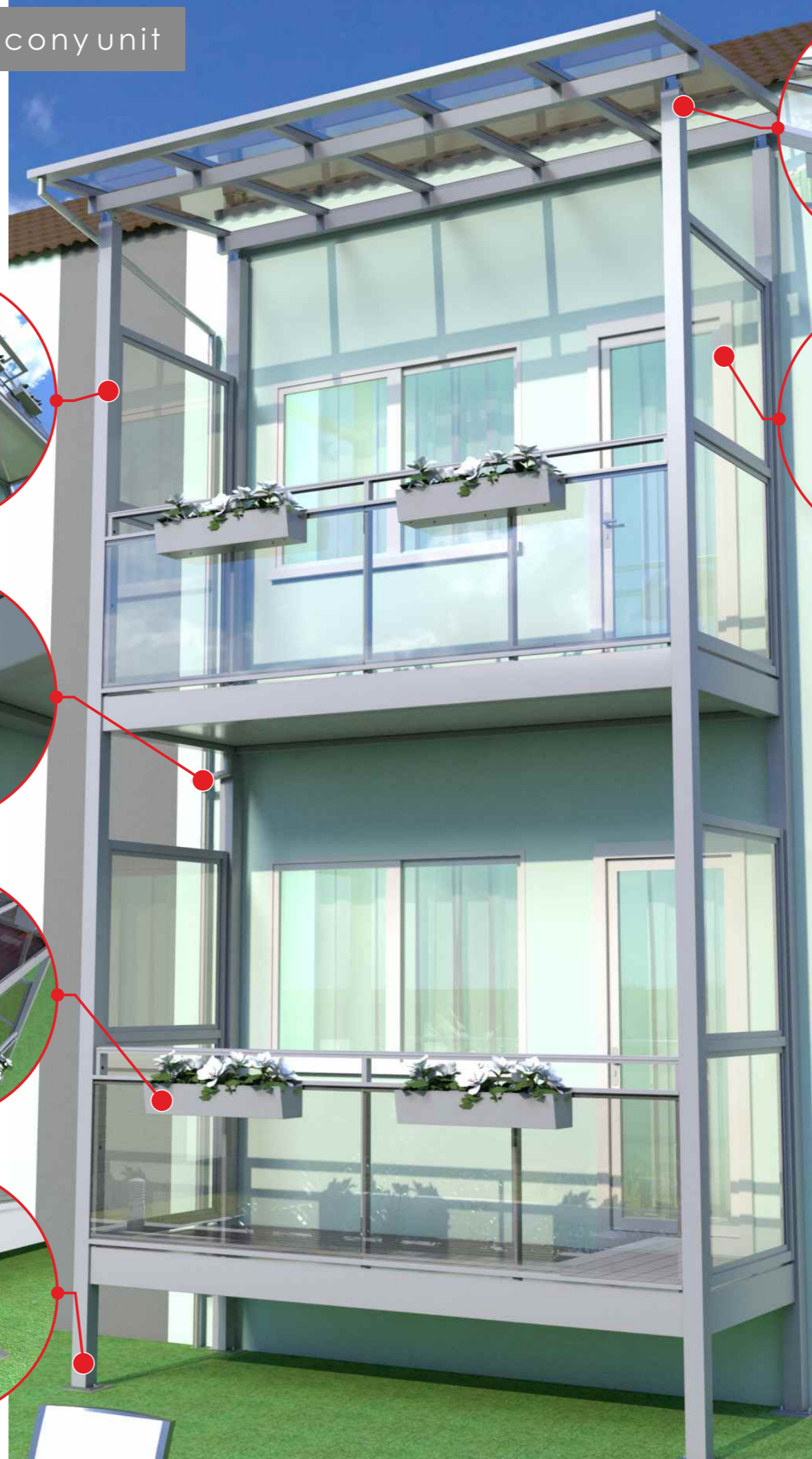
- Aluminium downpipe
- Installed outside or within the framework of a balcony platform

Planters

- Aluminium sheet, finished in the RAL colour of choice
- A decorative finishing component

Foundations

- Each add-on balcony unit is supported by four columns set in cast-in-place socket units
- Easy installation on existing buildings



Canopy

- To custom order
- Canopy materials:
 - clear glass;
 - frosted glass;
 - multiwall PC;
 - solid PC.

Balcony partitions

- Sheltering, dividing, structural and decorative uses
- Available with different infills: clear, openwork or solid
- (clear laminated safety glass with coloured film layers available at different opacity levels or with colour patterns)

Railing systems

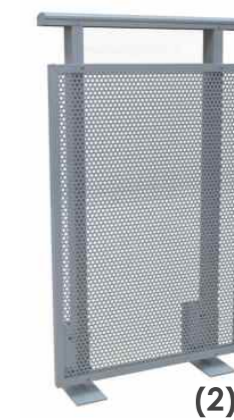
- Aluminium-based
- Railing infill panels available to the customer's specifications:
 - aluminium composite panels;
 - banisters (4);
 - perforated sheet (2);
 - laminated safety glass (1);
 - Trespa panel;
 - fibre cement panels;
- Handrail styles: round or flat

NEW ON OFFER

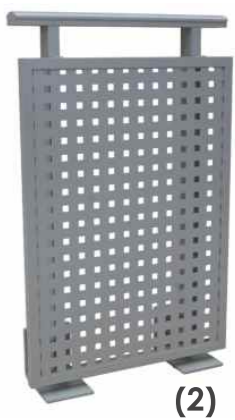
- self-supporting balustrade (3)



(1)



(2)



(2)



(3)



(4)



(4)

Frameless balcony glazing



Frameless balcony enclosures are modern systems based on aluminum rails and tempered glass. Tempered glass is very resistant to weather conditions, and its breakage is not a threat to passers-by.

The frameless balcony enclosure system allows to arrange windows in such a way that they form a completely invisible and uniform surface – a balcony façade. However, on warm and sunny days, it lets you fold all the glass panels in one package, so you can facilitate the free flow of air.



Enclosing the balcony with a frameless system is a practical cover that does not interfere with the architecture of a building. Its form gives a higher standard of use and a very modern and aesthetic design.



Balcony screen enclosures



Frame balcony enclosures are sliding systems. Sliding windows are made of aluminum profiles, which allow window glasses of a different type to be used. Windows slide both directions, and this is very easy due to the use of stainless bearings. Special fasteners prevent the automatic opening of windows from the outside due to weather or unauthorized access. It is also additional protection when children are playing on the balcony.

Frame balcony screen enclosures are a system that protects against wind or rain; yet, they can also ventilate the balcony. The Copal balcony enclosure is a buffer zone designed to provide savings on heating while the windows themselves almost always keep the temperature above 0 °C, i.e. 32 °F, in the winter.



The light Copal balcony screen enclosure system allows to create permanent frame structures as well, which complement the balcony enclosing structure perfectly. As a result, we offer a complete set for balcony processing, regardless of the stage of construction.

Certification for guaranteed safety and quality

Copal's highest quality management standards and superior product quality are demonstrated by the ISO certification, recognized around the world.

- ISO 9001:2008 Quality Management System
- ISO 14001:2004 Environmental Management System
- EN ISO 3834-2 Welding Certification and EN 15085-2 CL2 certification
- EN 1090-3 Welding Certification
- EN 1090-1 Factory Production Control Certification

Reliability, quality and timeliness: Copal's principals from the very beginning.



Renovation of an old residential building - visualisation

Before



After





Aluminium framework balconies with proven dimensioning

Our know-how and experience in the development of add-on balcony units have helped us define the most repeatable dimensions, related to the unit's length and width.

Standardized dimensioning has the advantage of low-cost, short production cycles and easy delivery of design and engineering documents.

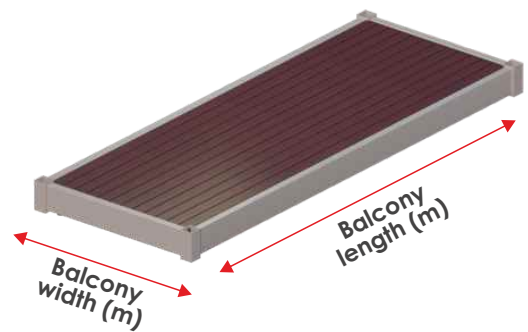
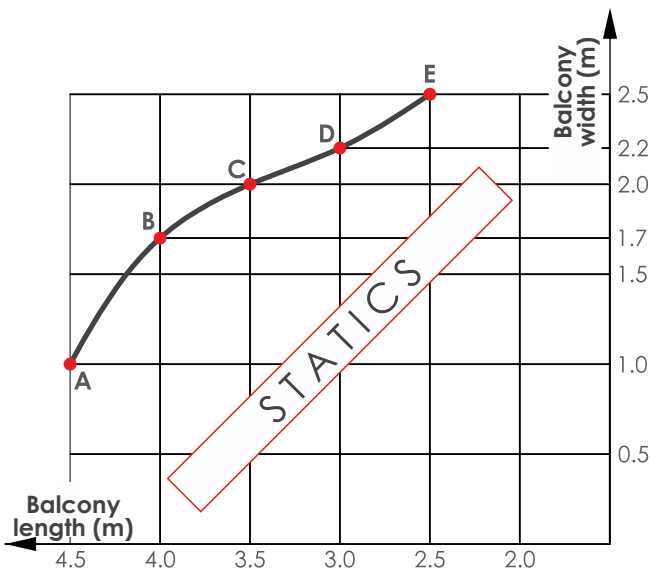


Table 1. Diagram of Copal add-on balcony units