

SWISSMETAL⁺

ARCHITECTURE

ARCHITECTURAL BRONZE
A HIGHLY PROFILED MATERIAL

ISO 9001
ISO 14001

BUREAU VERITAS
Certification



Architectural bronze, the epitome of elegance and nobility, sets accents of lasting value in contemporary architecture.

Its technical properties, its simplicity of machining and its insensitivity to the vagaries of the weather make this metal an interesting material for your construction objectives, this also from an economic point of view.

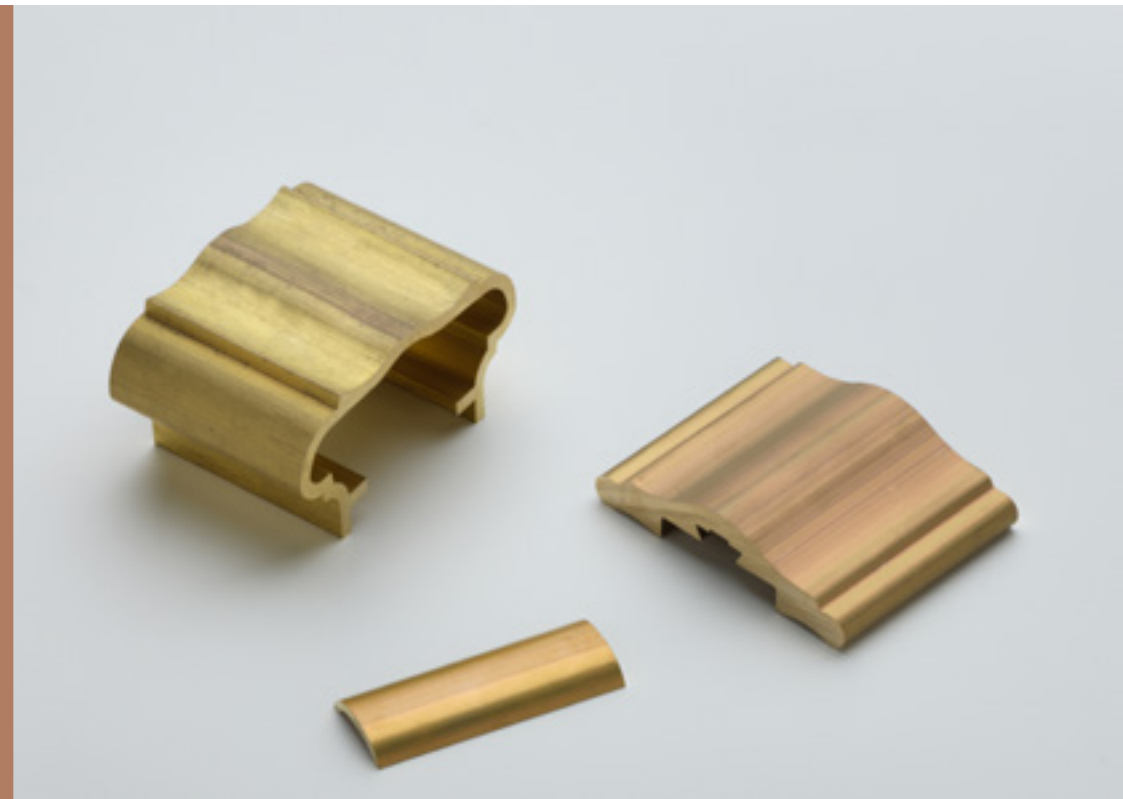
In cooperation with our specialists, you design an absolutely personal solution and tailor-made

where you choose from our extensive range of profiles.

Architectural bronze is a competitive material.

Advantages:

- Noble
- Solid
- Weatherproof
- Easy to maintain
- Easy to convert
- Simple to machine
- Economical
- Recyclable



#ARCHITECTURE | COLOR SHADES

Bronze gives your building an aura of warmth and elegance. The color range of the alloys goes from yellow gold to red brown, through yellow brown.

Used outdoors, bronze develops a natural patina whose colors range from pale brown to dark brown or anthracite grey.

Shiny or matt, the surface treatment amplifies or attenuates the effect of the color exactly according to your designs.

Surface treatments:

- Polishing
- Burnishing
- Brushing
- Shot blasting



ARCHITECTURAL BRONZE HAS A
UNIQUE DEPTH OF COLOR

#ARCHITECTURE | SUSTAINABLE VALUE

Architectural bronze is optimal when maximum durability is desired.

Timeless, it fits discreetly into any sensitive context or classified as a historical monument.

It harmonizes with other building materials without dominating them. The patina constitutes a natural protective layer which guarantees a long life with minimum maintenance. The investment costs therefore pay for themselves in just a few years.

Motifs:

- Long life
- Minimum maintenance
- Simplicity of machining
- Timeless in its combinations



#ARCHITECTURE | WEALTH OF SHAPES

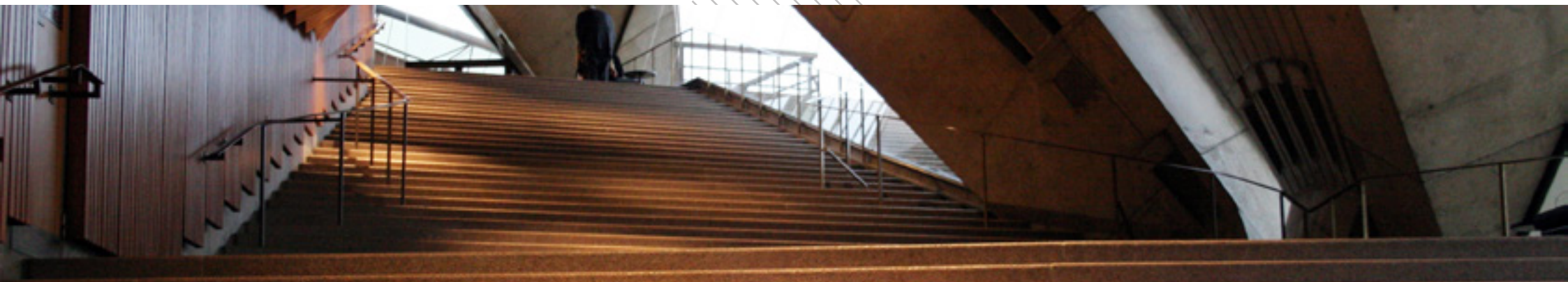
The good processability of architectural bronze gives you complete freedom to design window frames or facade and door profiles. In interior design, it allows you consistent and personalized retail solutions.

Thanks to our specific knowledge of materials, we also master the most complex transformation processes.

Architectural bronze can be transformed as you wish.

Process:

- Foundry
- Hot extrusion
- Cold processing



#ARCHITECTURE | TECHNICAL SKILLS

Over more than a century of activity in this sector has given rise to a global network of architects, general contractors, system providers and metal fabricators.

It is in this context that our qualified specialists develop, together with you, projects already from the call for tenders or competition.

Our production sites are able to deliver reliably and on time large or small order volumes.

Swissmetal is ISO 9001:2015 and ISO 14001:2015 certified.

Our services:

- Construction consulting
- Design proposals
- Support during procedures application
- Sampling
- Production
- Special executions
- Logistics



#ARCHITECTURE | TECHNICAL PROPERTIES

Architectural bronze is distinguished by high tensile and pressure resistance. Its specific weight is comparable to that of steel.

Low thermal expansion indices allow bronze profiles to be used in exposed locations and for the construction of high-tech facades. Resistant to corrosion, architectural bronze is also the ideal material in regions with strong climatic variations.

Assembly techniques:

- Indentation (mechanical assembly)
- Winding
- Screwing
- Bonding
- Braising
- Welding

ARCHITECTURAL BRONZE Dorna-A pressed	ALUMINIUM AlMgS 10.5	STEEL STAINLESS A4
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Comparative architectural bronze - other materials

Specific weight (kg/dm ³)	8.3	2.7	7.95
Coefficient of thermal expansion (mm/m x 10 ^{°C})	0.13	0.23	0.16
Thermal conductivity (W/mK)	79	200	15
Elasticity module (kN/mm ²)	83	70	210
Tensile strength (N/mm ²)	> 400	> 210	450 - 700
Elasticity limit (0.2%) (N/mm ²)	> 150	> 170	> 200
A5 elongation (%)	> 15	10 - 15	> 40

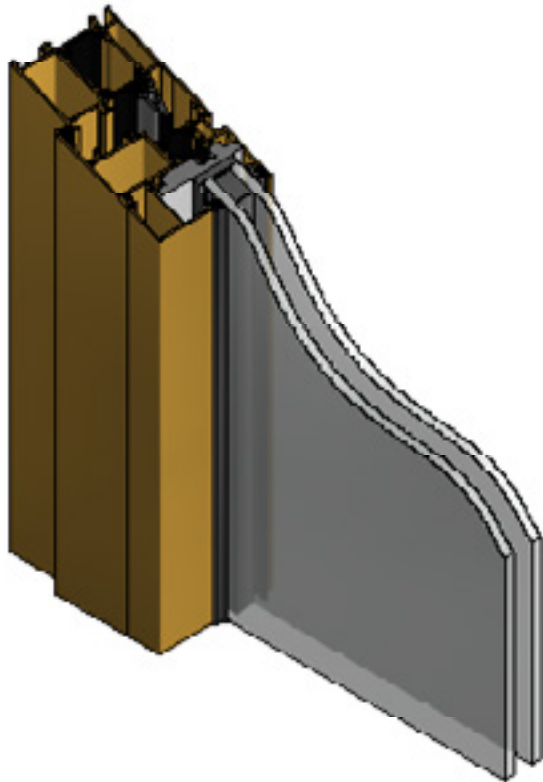
ARCHITECTURAL BRONZE
LEND ITSELF TO ALMOST
ALL MACHINING TECHNIQUES



#ARCHITECTURE | DIVERSITY OF PRODUCTS

The standard assortment for exterior and interior fulfills the majority of our customers' wishes. Respecting the creativity and design freedom of your construction projects, we offer application possibilities in the areas of statics, deformation and resistance similar to those of steel and aluminum.

The geometry and functionality of the profile determine the thickness of the wall (between 1.3 and 4 mm), with a maximum width that fits



in a circle of 165 mm. The profiles are manufactured in accordance with the SN EN12167:2016 standard, extruded and cold calibrated. They can also meet more specific constraints or requirements depending on your needs.

Swissmetal Industries SA can rely on many years of experience and technical skills to provide you with the best possible service. We are recognized worldwide as a leading supplier in the application of thermally broken hollow sections.

World technology leader for architectural bronze hollow sections and thermally separated systems.

The assortment:

Solid profiles ■ Filigree open profiles ■ Hollow profiles ■ Profiles for thermal separation systems ■ Profiles for handrails and railings



#ARCHITECTURE | SELECTION OF COMPLETED PROJECTS



2016
New National Museum,
Oslo, NOR



2007
The Peninsula Hotel,
Tokyo, JPN

2015
Private Residenz,
Moskau, RUS

2003
Royal Palace,
Amman, JOR

1998
Carlton Gardens,
London, GB.

2003
World Squares,
London, GB

2013
Presidential Palace,
Abu Dhabi, UAE

2017
Sydney Opera House,
Sydney, AUS



Selection of other achievements

- **1987** | State Central Bank, Frankfurt
- **1992** | Roche, Kaiseraugst
- **1994** | Training Centre UBS, Basel
- **1996** | Stockerhof, Zurich
- **1998** | Unter den Linden 78, Berlin
- **2017** | Roche, Kaiseraugst
- **2018** | Bleicherweg 58, Zurich
- **2018** | Swiss RE, Zurich
- **2019** | Villa Rosau, Zurich
- **2022** | Jelmoli, Zurich



ABOUT US

Swissmetal manufactures and markets worldwide high value-added products based on copper or copper alloys, mainly intended for the industrial sectors of electronics, telecommunications, aeronautics, petroleum, automotive , office automation, watchmaking and the architecture sector.

www.swissmetal.com

REQUEST A QUOTATION

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