



**CIVRO WINDOWS, DOORS AND FAÇADES SYSTEM**

# **SURFACE FINISHES**

# ARTFUL ELEGANCE: A DIVERSITY OF COLOURS AND FUNCTIONAL COATINGS

The surface treatment of aluminium profiles is an art, bestowing not only exceptional weather resistance and corrosion protection but also a poetic expression of the homeowner's unique style and taste. Through advanced finishing techniques, these profiles harmonize durability with elegance, enriching the home's comfort and value. This meticulous craftsmanship transforms architectural elements into enduring symbols of personal sophistication, ensuring timeless beauty and performance.

## PLANNING HIGHLIGHTS

- Exceptional weather resistance of MED: our ultimate solutions withstand high humidity, salinity, and moisture. Excellent UV resistance protects against colour fading
- Exclusive MED coating provides an elegant, smooth, and refined matte profile texture
- Environmentally friendly- no hazardous gases or waste, no VOC
- Unified colour concept across all CIVRO window, door, and sliding systems
- Durable and low-maintenance: surface dust and stains can be effortlessly wiped away and cleaned
- Finely textured woodgrains are also available

## SURFACE FINISH OPTIONS:



# COLOUR PALETTE

For a unified color concept across all CIVRO window, door, and sliding systems, consider a palette that reflects modern aesthetics and durability.

This palette not only aligns with contemporary design trends but also ensures coherence and elegance across your product range.

Neutral shades:

Choose from tones (MED or powder coating) like platinum grey, inkstone grey, glacier silver, dark-space grey, or muse white for a sophisticated and versatile base.

## CIVRO MED



## POWDER COATING



**Accent colours:**

Introduce subtle metallic finishes (powder coating) or MED like brown coffee, korean pine green or obsidian black, mocha coffee for a touch of elegance.

**CIVRO MED****POWDER COATING****Woodgrain finishes:**

Offer umber-black ebony woodgrain option in natural oak or walnut tones for a warm, natural look.

**WOODGRAIN****Disclaimer:**

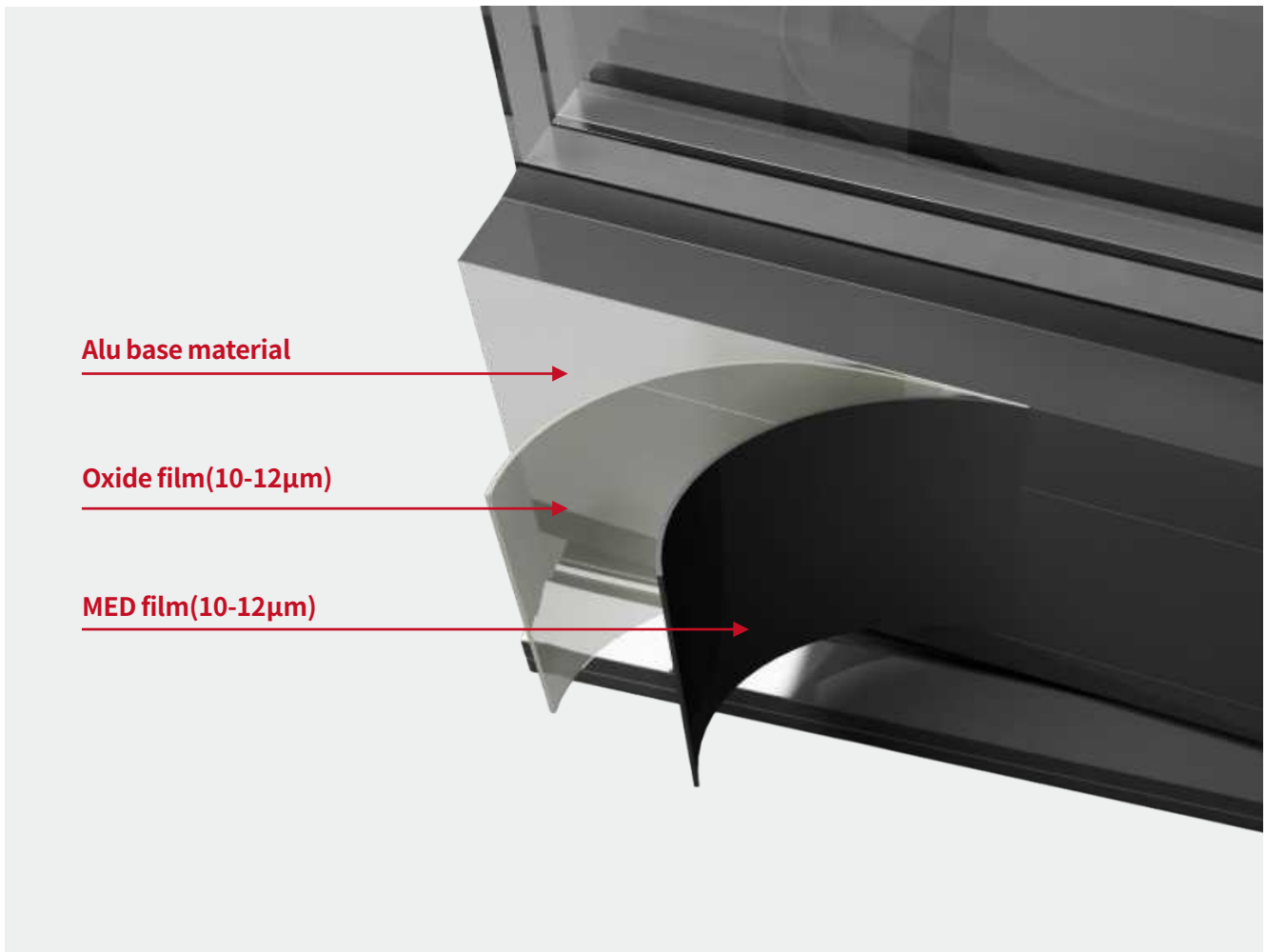
Please note that while every effort has been made to ensure the accuracy of the colour representations in this brochure, colours may vary slightly from actual products due to differences in lighting, screen calibration, and other factors. Additionally, due to variations in production batches and other factors, there may be minor colour differences between the displayed swatches and the actual products. We recommend viewing physical samples for the most accurate colour assessment. CIVRO cannot be held responsible for any discrepancies between brochure images, swatches, and the actual product colours.

# CIVRO MED A STATE-OF-THE-ART ELECTRO DEPOSITION PROCESS

CIVRO Matte Electro-Deposition (MED) is an innovative surface treatment process for aluminium profiles, based on the principle of electrodeposition. Originating from Japan, this technology's formula has been redeveloped by CIVRO. The texture of MED profiles is smooth and silky, reminiscent of porcelain, specifically designed to withstand severe climatic conditions. CIVRO MED outperforms competing products on the market in terms of both weather resistance and environmental protection.

CIVRO MED utilises pure nickel salts in its process for enhanced stability and environmental friendliness, distinguishing itself from other companies that commonly use tin salts, resulting in a cyan hue to the base material. While this approach reduces costs, impurities in tin salts can lead to harmful exhaust gases and waste during aluminium profile manufacturing, posing environmental risks.

The oxide film thickness of CIVRO MED profiles is 10-12 $\mu\text{m}$ , combined with a 10-12 $\mu\text{m}$  Electro-Deposition (ED) film, resulting in an overall composite film thickness of 20-24 $\mu\text{m}$  and alkali resistance exceeding 300 hours. In comparison, similar products on the market typically feature only a 7 $\mu\text{m}$  ED film with alkali resistance of around 24 hours. Due to its superior weather resistance, CIVRO MED profiles are widely applied in harsh environmental conditions such as coastal cities with high humidity and salinity, regions experiencing high temperatures and humidity, and cities with significant seasonal temperature variations.



# DIFFERENCE OF GLAZED ELECTRO-DEPOSITION AND MED

## SURFACE FINISH

- Electro-deposition
  - Typically results in a smooth, often shiny or glossy finish, which may cause light pollution
  - The ED film may highlight flaws in the base material
- Matte Electro-deposition
  - Specifically designed to create a dull, non-reflective finish
  - Effectively covers minor defects in the raw material

## FUNCTIONAL CHARACTERISTICS

- MED offers superior weather resistance, corrosion resistance, and hardness compared to electro-deposition coatings due to its higher molecular density

## AESTHETICS

- Electro-deposition
  - Often used when a bright, polished appearance is desired
- Matte Electro-deposition
  - Preferred for applications requiring a subdued, non-glare appearance

## APPLICATIONS

- Electro-deposition
  - Commonly used where appearance and corrosion resistance are important
- Matte Electro-deposition
  - Ideal for applications requiring robust weather resistance and a low-gloss finish for aesthetic reasons

## MED FACTS

- Gloss level  $\leq 12$ GU, achieving a true matte effect
- Accelerated weather resistance (Xenon lamp test)  $> 8000$  hours
- High temperature and humidity resistance  $\geq 1000$  hours, ideal for high-salt alkali coastal areas
- Pencil hardness of paint film  $\geq 4$ H
- Copper accelerated CASS salt spray test  $\geq 300$  hours (measured over 312 hours)

## CIVRO POWDER COATING POWDER COATING FACTS

- European-made eco-friendly powder coating, offering exceptional weather resistance and corrosion resistance
- Swiss-made fully automatic horizontal spray coating equipment
- The coating thickness  $\geq 40\mu\text{m}$ , suitable for various application scenarios
- More vibrant colours with a wider range of choices
  - Accelerated weather resistance (xenon lamp test) approximately 4000-6000 hours
  - Pencil hardness  $\geq 1$ H
  - Acetic acid salt spray test (AASS) exceeds 1000 hours

# OVERVIEW OF VARIOUS SURFACE FINISHES

	<b>Powder coating</b>	<b>Fluorocarbon painting</b>	<b>Glazed electro-deposition</b>	<b>Matte Electro Deposition(MED)</b>
<b>PERFORMANCE</b>				
Accelerated weather resistance(hours)	>1000	>4000(General) >6000(Excellent)	1500(General) 3000(Good) 4500(Excellent)	8000+ hours (Contain fluorocarbon resin)
Filiform corrosion (corrosion under the coating)	Severe, complex cross-section corrosion, not suitable for coastal condition	Severe, complex cross-section corrosion, not suitable for coastal condition	No filiform corrosion	No filiform corrosion
Pencil hardness	No requirement	>1H	>3H	>4H
Coating thickness	>40µm	>40µm	oxidation film +paint film ≥17µm	oxidation film +paint film ≥22µm
High temperature and humidity resistance (hours)	No requirement	No requirement	No requirement	>1000
Abrasive resistance (shakeout test)	>0.8L/µm	>1.6L/µm	>3000 grams	>3300 grams

## SINCE 1993

CIVRO has accumulated over 30 years of experience in the research, development, and production of system doors and windows. Embracing the pioneering concept of global system doors, windows, and curtain walls, CIVRO adapts to the diverse and complex climatic conditions represented by China, covering usage habits across multiple dimensions. Upholding the integrated principles of safety, environmental protection, sustainable development, and aesthetics, Civro is committed to providing superior design inspiration and higher architectural value for global architects, designers, developers, and property owners. It aims to create personalized architectural facade system solutions for global landmark buildings and elite circles, establishing itself as a leading brand in global architectural facades.



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#### **Note:**

All product catalogs and planning data such as product parameters and performances, detailed drawings, attachment to building structure drawings and CAD drawings, which you obtain from our website, digital centre, franchisers or other channels and which you can save to your computer, are examples which are intended to help you plan and design your project. These contents must be checked for its suitability in the relevant structural scenario. The technical and legal regulations, the site conditions, and the design and structural requirements, must be assessed and planned independently by the developer and observed by the company contracted to do the work. Data or descriptions in these documents may be modified or amended due to technique improvement or design optimisation. **PLEASE BE AWARE OF NECESSITY OF PRE-CHECK TO AVOID ANY MISUNDERSTANDING OR PLANNING LOSE.**