



F20 - Estetic[®] organic coated steels for indoor building, general industry and electronic equipment

This range of products is suitable for all contemporary interior decoration: ceiling panels, room dividers, decorative walls and lights, as well as for metal furniture, air conditioning units etc.

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Properties

The ArcelorMittal Estetic® range of organic coated steels covers all possible applications for indoor building, general industry and electronic markets.

The range comprises conventional organic coated steels produced by applying liquid paint to a substrate by means of a continuous process. The coatings used in the Estetic® range are based on thermosetting resins. One product in this range is a colaminated steel with an inert film.

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Advantages

Specifically developed for interior building/general industry applications, this product range meets all requirements in terms of aesthetic quality (appearance and gloss) and properties such as flexibility, surface hardness, coating adhesion, corrosion resistance etc. Several products in the Estetic® range have been developed to meet the requirements of the W.E.E.E. and R.o.H.S. European directives. The composition of the various organic paint layers also complies with the requirements of these directives.

Organic coated steel products are a better alternative to post-painted finished products. The process is environmentally friendly, economical and guarantees a consistent product quality.

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Applications

The table below shows the whole Estetic® range as well as its main applications.

| Name | Main properties | Surface appearance | Applications |
|----------------------|--|--------------------|---|
| Estetic® Access | Economical | Smooth | Inner surface of sandwich panels, metal furniture, indoor use |
| Estetic® Standard | Good compromise flexibility/surface hardness | | Indoor use: shelves, radiators, casings |
| Estetic® Flex | Flexibility | Smooth, grained | Water heater casings and other casings, deep drawn components etc |
| Estetic® Tex | Surface hardness | Textured | Metal furniture, shelves, radiators, air conditioning units etc |
| Estetic® Mat | Flexibility, matt appearance | Smooth, wrinkled | Metal ceilings (cappings, perforated panels, accessories), indoor panels |
| Estetic® Clean | Resistant to aggressive and very wet environments. Inert to chemicals, highly resistant to stains, cleaning products and disinfectants | Smooth | Panels for cold rooms (ceilings, wall partitions, doors etc), food stores |
| Estetic® Lighting 82 | Very high reflectance | | Lighting |
| Estetic® Wipe Board | High-gloss finish. Wipeability after marking with dry marker pens | | Wipe boards |
| Estetic® High Tech | Very good resistance to press forming | | Computer casings, back panels of TVs, hi-fi etc |
| Estetic® Conductive | Conductive paint with anti-fingerprint properties | | Teletronic goods, hi-fi, computers, weldable structures |

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Standards

Estetic® products are in compliance with standard EN 10169.

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Technical properties

The technical properties of these Estetic® products depend on the chemical composition and thickness of the coating. These properties are summarised in the tables below. Please contact us for advice on the choice of the most suitable grade.

A temporary removable protective film can be applied on the top side, depending on the type of coating. Please contact us for further information.

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Food contact

For information on food contact, please contact us.

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Recommendations for use

Estetic® products can be processed by cold forming and deep drawing without damaging the top surface. They can be joined using techniques such as clinching, riveting and adhesive bonding.

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Mechanical properties

Estetic® products are available with a wide range of mechanical properties.

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Brand correspondence

| |
|----------------------|
| |
| Estetic® Access |
| Estetic® Standard |
| Estetic® Flex |
| Estetic® Tex |
| Estetic® Mat |
| Estetic® Clean |
| Estetic® Lighting 82 |
| Estetic® Wipe Board |
| Estetic® High Tech |
| Estetic® Conductive |

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Dimensions

| Thickness (mm) | Min width | Estetic [®] Access, Estetic [®] Standard, Estetic [®] Flex, Estetic [®] Tex, Estetic [®] Mat, Estetic [®] Clean, Estetic [®] Lighting 82, Estetic [®] Wipe Board, Estetic [®] High Tech, Estetic [®] Conductive | |
|---------------------|--------------|--|--|
| | | Max width | |
| 0.17 ≤ th < 3.00 | 700 | 1850 | |

Not all thickness/width combinations are available. Please contact us for further information.

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Coating properties

Estetic® Lighting 82: in compliance with the R.o.H.S. directive.

For other products, please contact us for further information.

The following table lists the guaranteed properties of the coating applied to a galvanised steel substrate with a zinc coating of minimum 100 g/m² (Z100), except for Estetic® High Tech and Estetic® Conductive, which are evaluated on EZ 25/25. These properties are also valid for Estetic® Access and Estetic® Standard on Optigal® with a minimum of 60 g/m² and on galfan with a minimum of 95 g/m² (ZA95).

| | Estetic® Access | Estetic® Standard | Estetic® Flex | Estetic® Tex | Estetic® Mat | Estetic® Clean | Estetic® Lighting 82 | Estetic® Wipe Board | Estetic® High Tech | Estetic® Conductive |
|--|-----------------|-------------------|-------------------|-------------------|---|----------------|----------------------|---------------------|--------------------|--------------------------|
| Thickness | 15 µm | 25 µm | 25 µm | 35 µm | 25 µm | 50 µm | 25 µm | 25 µm | 22 - 25 µm | 3 µm |
| Gloss (Gardner 60°) | 30 GU | 30 GU | 30 - 80 GU | 30 - 50 GU | Usual: 15 GU; possible: 5 - 20 GU; < 5 GU for wrinkled surfaces | 17 GU | 50 - 90 GU | 80 - 90 GU | ≤ 10 GU | 10 GU |
| Surface appearance | Smooth | Smooth | Smooth, grained | Textured | Smooth, wrinkled | Smooth | Smooth | Smooth | Smooth | Smooth |
| Adhesion of the coating (T-bend) | ≤ 2 T | ≤ 2 T | 0 T | ≤ 0.5 T | ≤ 0.5 T | 0 T | ≤ 0.5 T | ≤ 3 T | 0 T | ≤ 0.5 T |
| Resistance to cracking on bending (T-bend) | ≤ 3 T | ≤ 3 T | ≤ 1 T | ≤ 2 T | ≤ 2 T | ≤ 1 T | ≤ 2 T | | ≤ 1 T | ≤ 1 T |
| Impact resistance | 15 J | 18 J | 18 J | 18 J | 18 J | 18 J | 18 J | | 18 J | 18 J |
| Surface "pencil" hardness | HB - H | HB - H | HB - H | H - 2H | HB - F | 2H | HB - F | F - H | H - 2H | HB - H |
| Condensation resistance (QCT) | 500 hours | 1000 hours | 1000 hours | 1000 hours | 1000 hours | 2000 hours | 1000 hours | 500 hours | 1000 hours | 500 hours |
| Resistance to acids and bases | Medium | Good to very good | Good to very good | Good to very good | Good | Very good | Good to very good | Good to very good | Good | Good |
| Resistance to aliphatic and alcoholic solvents | Good | Very good | Very good | Very good | Good to very good | Very good | Good to very good | Good to very good | Good to very good | Good to very good |
| Resistance to ketone solvents | Low | Low | Low | Low | Low | Very good | Low | Low | Low | Low |
| Resistance to aromatic solvents | Medium | Good | Good | Good | Good | Very good | Good to very good | Good to very good | Very good | Very good |
| Resistance to mineral oils | Good | Very good | Very good | Very good | Very good | Very good | Very good | Very good | Very good | Very good |
| Corrosion resistance (salt spray test) | 150 hours | 240 hours | 240 hours | 240 hours | 240 hours | 500 hours | 240 hours | 150 hours | 240 hours | 72 hours (< 5% red rust) |
| Corrosion resistance category | CPI2 | CPI3 | CPI3 | CPI3 | CPI3 | CPI5 | CPI3 | CPI2 | CPI3 | CPI2 |
| Scratch resistance (Clemen) | | | | | > 2 kg | ≥ 5 kg | | | | |

Any questions?

Ask them via our contact form on <https://industry.arcelormittal.com/getintouch>

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