



ArcelorMittal

ArcelorMittal Europe

Flat Products - Industry



E80 - Steels with Easyfilm[®] thin organic coating

This thin transparent organic coating offers additional corrosion protection, increases protection against fingerprints and improves sliding characteristics during forming operations. It can be used as a primer coat for subsequent painting.

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Available grades:

■ **Easyfilm[®] E**

Properties

Within our range of metallic coated products, Easyfilm[®] is an environmentally friendly, chromate-free thin organic coating (TOC) continuously applied double-sided on the whole range of electrogalvanised steel, hot dip galvanised steel, galfan, Alusi[®] and Alupur[®]. Easyfilm[®] complies with current European legislation banning the use of hazardous substances such as hexavalent chromium, specifically the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment and the End-of-Life Vehicles directives.

Advantages

Easyfilm[®] has a dry appearance. Its essential role is to:

- Keep the metallic coating corrosion-free for six months (starting from the date on which the product becomes available at the manufacturer's works), providing that it is properly packed, shipped, loaded and stored
- Withstand fingerprints (anti-fingerprint properties)
- Facilitate forming (possible without the use of lubricating oils)
- Allow direct painting (without pre-treatment)

Applications

The applications of Easyfilm[®] are extremely varied, due to the range of properties and advantages available. They include:

- Construction: profiling, roofing, cladding, structural components etc
- Domestic appliances: washing machines, dryers, dishwashers, hi-fi equipment, covers, components etc
- General industry: electrical cabinets, metal furniture, heating and ventilation, cable trays etc

Brand correspondence

Full table

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Dimensions

These thin organic coatings can be applied to the following range of ArcelorMittal metallic coated steels:

- Electrogalvanised steel + Easyfilm[®]
- Hot dip galvanised steel + Easyfilm[®]
- Galfan + Easyfilm[®]

- Alusi[®] + Easyfilm[®]
- Alupur[®] + Easyfilm[®]

Easyfilm[®] on electrogalvanised steel

Full table

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Easyfilm[®] on hot dip galvanised steel

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Easyfilm[®] on galfan

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Easyfilm[®] on Alusi[®]

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Easyfilm[®] on Alupur[®]

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Coating properties

Performance

		Easyfilm [®] E
Surface protection	Salt spray test corrosion resistance (1)	Electrogalvanised steel > 50 hours
		Hot dip galvanised steel > 100 hours
		Galfan > 150 hours
		Alusi [®] > 500 hours
		Alupur [®]
	Humidity cabinet corrosion resistance (2)	> 500 hours (21 cycles)
Formability	Friction coefficient	$\mu d < 0.15$
Weldability	Weldability range	$\Delta I > 1 \text{ kA}$
Aspect	Anti-fingerprint performance	$\Delta E < 2$
Electrical conductivity		$R < 50 \Omega \cdot \text{cm}^2$ (for EZ 25/25)
Recommended maximum peak temperature		200°C
Resistance to degreasing	Thin organic coating weight loss (pH 10, 60°C, 120 s)	< 10%
Paintability (3)	Dry paint adhesion	0 (4)
	Wet paint adhesion (500 hours humidity cabinet)	0-2 (4)
	Delamination on scratching (120 hours salt sprav test)	< 3 mm

Impact test

0 paint
adhesion loss
up to 10 J

- (1) Resistance to salt spray test according to ISO 7253/DIN 50021 (evaluation: number of hours before maximum 5% white or black rust appears on the metallic coating)
- (2) Resistance to humidity cabinet test according to DIN 50017 (evaluation: number of hours before maximum 1% white or black rust appears on the metallic coating)
- (3) Indicative results (tested with two reference paints)
- (4) Paint adhesion on a grid; maximum permissible rating is 2 (0 = good adhesion, 5 = poor adhesion) (rating according to ISO 2409)

Any questions?

Ask them via our contact form on

<https://industry.arcelormittal.com/getintouch>

All details provided in the ArcelorMittal Flat Carbon Europe S.A. catalogue are for information purposes only. ArcelorMittal Flat Carbon Europe S.A. reserves the right to change its product range at any time without prior notice.

Related files on this product in our document centre

- Fire certificate **EN**
- RoHS certificate **EN FR**