



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.

Last update: 2017-9-19

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, Aluzinc[®], 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

Easyfilm[®] E

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

Easyfilm[®] on electrogalvanised steel

Thickness (mm)	Min width	Easyfilm [®] E Max width
$0.40 \leq th < 1.60$	600	1830

Easyfilm[®] on hot dip galvanised steel

Thickness (mm)	Min width	Easyfilm [®] E Max width
$0.30 \leq th < 3.00$	800	1650

Easyfilm[®] on galfan

Thickness (mm)	Min width	Easyfilm [®] E Max width
$0.25 \leq th < 2.95$	800	1643

Easyfilm[®] on Aluzinc[®]

Thickness (mm)	Min width	Easyfilm [®] E Max width
$0.25 \leq th < 2.00$	700	1500

Easyfilm[®] on Alusi[®]

Thickness (mm)	Min width	Easyfilm [®] E Max width
$0.30 \leq th < 2.95$	800	1500

Easyfilm[®] on Alupur[®]

Thickness (mm)	Min width
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		Easyfilm® E
		Max width
$0.55 \leq th < 2.00$	650	1130

Coating properties

Performance

		Electrogalvanised steel	Easyfilm® E > 50 hours
		Hot dip galvanised steel	> 100 hours
Surface protection	Salt spray test corrosion resistance (1)	Galfan	> 150 hours
		Aluzinc®	> 500 hours
		Alusi®	
		Alupur®	
			Humidity cabinet corrosion resistance (2)
Formability	Friction coefficient		$\mu d < 0.15$
Weldability	Weldability range		$\Delta I > 1 \text{ kA}$
Aspect			$\Delta E < 2$
Electrical conductivity	Anti-fingerprint performance		$R < 50 \Omega \cdot \text{cm}^2$ (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%
	Dry paint adhesion		0 (4)
	Wet paint adhesion (500 hours humidity cabinet)		0-2 (4)
Paintability (3)	Delamination on scratching (120 hours salt spray 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)

For commercial information (quotations, deliveries, product availability):

- Europe: <http://industry.arcelormittal.com/agencies>
- Other countries: international@arcelormittal.com

For technical questions about these products: flateurope.technical.assistance@arcelormittal.com

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