



ArcelorMittal

SHIELDARCEO



Advanced reflective material
for heat control

Arceo

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As a world leader in steel manufacturing, **ArcelorMittal** strives to stay at the forefront in coating processes.

With **R&D** centres that employ 1,300 people and have an annual budget of \$190 million, the group is continuously developing new products and **supporting its customers** by researching and developing new steel-based systems.

ARCEO, a subsidiary company of **ArcelorMittal**, is located in Liège (Belgium) and has an industrial production line totally dedicated to PVD (Physical Vapour Deposition) technology. The principle of PVD consists of accelerating ions under a vacuum and colliding them with a coating material. This removes atoms away from the material and deposits them evenly across the surface of the sheet to be coated.

This technology enables many different types of new development that can be applied to every market in which the ArcelorMittal Group is active: **energy management** (solar and lighting), automotive, construction, industry etc.

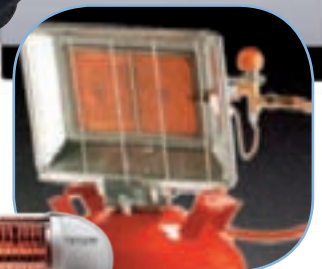


Shieldarceo product

Shieldarceo has been developed by ArcelorMittal to introduce a new material, as strong as Alusi® and as reflective as aluminium, with higher corrosion resistance.

Particularly designed for heat reflection, Shieldarceo is the technological answer to parts where the search for durable high energy performance combined with high mechanical properties, such as can be found only in steels, remains a key priority.

Shieldarceo is the trade name for high quality reflective material produced by Arceo. This product is suitable for automotive heat shields (motor and underbody shields), bulb shields, heating devices reflectors, oven heat shields, etc...



Advanced reflective material for heat control

⇒ Product Overview

- Alusi® substrate with **PVD coatings** applying IR and visible reflection enhancing layers, specially designed for heat control
- **High energetic efficiency from 92%**, with higher durability: salt spray, humidity, cleaning agents, and temperature resistance
- High temperature resistance: this product keeps its radiative and mechanical properties **up to 400°C**
- This product is compatible with existing production tools and can support a **large range of deformations** : bending, profiling or die forming and is also spot weld able

⇒ Product advantages

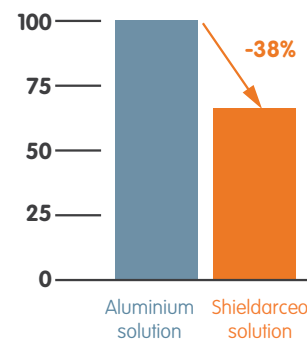
- High reflectivity
- Great mechanical properties, especially in high temperature
- Excellent formability
- Cost effective solution

⇒ Supply specifications

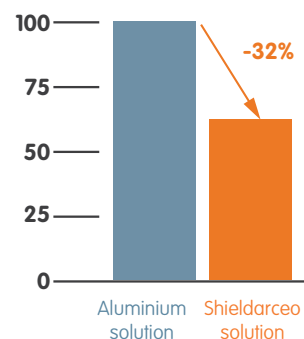
- Thickness: 0.4 (0.016 in) and 0.5 mm (0.020 in). Other thicknesses on request
- Standard width: 1150 mm (45 in)
- Delivery form: coils, slit or sheets
- Temporary protection on demand: strippable film
- Standard packaging: paper on wooden pallet
- Standard treatment: on both faces of the sheet. For mono-face treatment, please ask sales representative

- Shieldarceo **is environmentally friendly**
 - Using Shieldarceo can induce significant energy consumption reductions
 - This material complies with RoHS directive and is easily and fully recycled (same end of life path as Alusi®)
 - Life Cycle Analysis shows a neat reduction of Global Warming Potential and Energy Consumption, when replacing aluminum by Shieldarceo:

Emission of CO₂ *



Energy used*



* Detailed information available

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