

MIG DHMb® Lining System
For exterior application

MIG-ESP® Exterior

Active facade coating

www.innoradar.eu



- ✓ brilliant facades through light reflection (UV - IR)
- ✓ natural prevention against algae and moulds
- ✓ recommended for ecological, energy-efficient renovation
- ✓ heating and cooling regulation (through infrared reflection)
- ✓ extends the lifespan of facades
- ✓ reduces CO₂ emissions
- ✓ non-flammable - building material class A2



Product description

MIG-ESP® Exterior is an exterior coating based on the MIG DHMb® Lining Technology (DHMb® = Double Hybrid Membrane).

MIG-ESP® Exterior can be applied with paint rollers, brushes or the MIG-Zip 52 spraying unit.

MIG-ESP® Exterior can be used with an appropriate primer on a variety of substrates in the entire outdoor area. MIG-ESP® Exterior is the finish coat for MIG Therm M 65 and MIG 262. Further areas of application include renovation coatings on all paint-bearing substrates and on old and new insulation facades. The MIG-ESP®- colour chart offers a wide range of colour options.

Technical consulting service

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Processing and substrate pretreatment

MIG-ESP® Exterior is fast-drying and odourless during application.

Before processing, stir the material mechanically for approx. 3 minutes. Cover all adjacent components well or protect against splashes.

Do not use in direct sunlight, rain or high relative air humidity.

Spread MIG-ESP® Exterior evenly with suitable rollers, brushes or the MIG-Zip 52 spraying unit. The nozzle size should be 2.5 mm. The MIG-Zip 52 low-pressure spraying device with a nozzle

size of 2.5 mm, which is specified for the coating, is available from us. Do **not** mix **MIG-ESP® Exterior** with other materials. When using rollers or brushes, a dilution with drinking water or **MIG-ESP® Sealing Primer** of max. 3 %, and when using the MIG-Zip 52 spraying device, a dilution of max. 5 %, is recommended for better processing. The object and ambient temperature should not be below + 5 °C and not above + 35 °C during application. Shade from the sun whenever possible when exposed to summer temperatures. Surface drying can be achieved after only approx. 30 minutes. The dry-through time for each of the two coating processes is approx. 24 hours under normal conditions (+ 20 °C/65 % relative air humidity). Lower temperatures and higher relative air humidity extend the dry-through time.

The substrate must be clean, dry, solid, free of efflorescence, dust and loose parts or release agents (e.g. formwork oil). For absorbent substrates, a priming coat with **MIG-ESP® Sealing Primer** is required. This consolidates the substrate and compensates for different absorption characteristics. For metal and concrete surfaces, cement fiber boards as well as contaminated, penetrating substrates we recommend **MIG-ESP® Special Primer** as a bonding agent. Use **MIG-ESP® PVC Primer** for tent tarps.

➤ A layer thickness of 0.40 mm is required to achieve the full effect of the **MIG DHMb® Lining Technology!** When applying **MIG-ESP® Exterior** with a roller or a brush, experience shows that **two coats** are necessary for the required layer thickness. When applying tinted **MIG-ESP® Exterior**, use **MIG-ESP® Exterior, White** as the first coat before applying the tinted second coat.

Any structural defects or damages must be remedied before application!

Coating procedure

1. Substrate preparation	Substrate must be clean, dry, solid, free of efflorescence, dust and loose parts or release agents (e.g. formwork oil)
2. Apply primer	Depending on substrate (see page 4, MIG DHMb® Lining System – Products → Primers), apply e.g. MIG-ESP® Sealing Primer or plaster strengthener. Allow to set for approx. 1 hour. Use MIG-ESP® PVC Primer for tent tarps
3. Stir	Stir MIG-ESP® Exterior with an electric stirrer for approx. 3 minutes until the texture is creamy
4. First coat	Spread MIG-ESP® Exterior, White evenly in a crosswise motion and finish off by rolling the surface in one direction
5. Drying time	24 hours drying time between both coating processes
6. Second coat	Spread MIG-ESP® Exterior, White or tinted evenly in a crosswise motion and finish off by rolling the surface in one direction

Technical data

highly UVA resistant

solvent-free, environmentally friendly and odourless

water-repellent, microporous and non-film forming

building material class A2 (non-flammable), DIN 4102, Part 1 (May 1998)

highly water vapour permeable (sD -value 0.05 m ± 0.02 according to EN ISO 7783-2) equivalent to V1

water absorption w-value after 24 hours < 0.10 kg/m²h^{0.5} according to DIN EN 1062-3 (W3)

wet abrasion class II

opacity class II at approx. 0.25 L/m²

degree of whiteness according to CIE: > 95 %

gloss grade: matt (DIN 53778)

pH-value 9.0 (± 1.0)

density 1.05 g/cm³ (± 0.05)

degree of reflection > 90 % for white coating

ε_n = 0.315 according to DIN-EN 12898 : 2019-06 with FTIR Bruker Vertex 70 at 5.5 to 23.3 μm

crack-filling up to approx. 0.5 mm

Fire behaviour

MIG-ESP® Exterior fulfils the requirements of building material class A2 for non-flammable building materials according to DIN 4102, part 1 (May 1998) with a coverage rate of 0.50 L/m² on solid mineral substrates.

Test institute Hoch, Lerchenweg 1, D-97650 Fladungen, Test certificate PZ-Hoch-131357

UV and weather resistance

MIG-ESP® Exterior is extremely weather-resistant and UV-stable. This ensures a long-lasting facade hygiene (against soiling, algae infestation, etc.). All details can be found in the **test report no. 130608 - ILF Forschungs- und Entwicklungsgesellschaft Lacke und Farben mbH**. The high degree of reflection gives buildings a long-lasting brilliance.

U-value Effect

Hygrothermal energy efficiency simulation (**WUFI® Pro**) can be performed on request.

Consumption

Depending on the type and porosity of substrate, approx. 0.50 L/m² with two coats on smooth surfaces.

➤ **Rough, structured or highly absorbent surfaces can increase consumption. Exact consumption quantities can be determined by creating test areas.**

Cleaning

Clean tools thoroughly with water after use. The containers must be emptied completely and recycled.

Storage

At least 12 months shelf life from date of sale if stored dry, frost-free and cool under proper conditions in original sealed containers. Tinted goods must be processed within 3 months.

Packaging

5 L (per plastic bucket) x 60 buckets (**per pallet**) = 300 L
 15 L (per plastic bucket) x 24 buckets (per pallet) = 360 L
 1,000 L IBC

Customs tariff number

32099000

MIG DHMb® Lining System – Products

Primers

MIG-ESP® Sealing Primer
 MIG-ESP® Special Primer
 MIG-ESP® Primer quartz-filled
 MIG-ESP® PVC Primer
 MIG-ESP® Primer for Wood (for indoor use only)

Impregnation

MIG Impregnating Agent for Natural Stone Facades

Sealing

MIG Sealer

Plasters

MIG 262
 MIG Therm M 65
 MIG Therm L 14
 MIG HRP Heat Resistant Protector
 MIG Thermalife Ecoplaster

Finish coats

MIG-ESP® Interior
 MIG-ESP® Interior Anti-Microbial
 MIG-ESP® Exterior
 MIG-ESP® Rooflect

Warranty

We give a 10-year quality guarantee on **MIG-ESP® Exterior**. This warranty applies exclusively to the product applied to the surfaces by professional painters and not to the related services in compliance with our warranty conditions. An unbroken chain of evidence showing the correct application of the product must be provided.

For the warranty conditions form:



Legal information

The information in this publication is based on our current technical knowledge and experience. Due to the abundance of possible influences during the processing and application of our products, they do not release the user from his own tests and trials and are only general guidelines. A legally binding assurance of certain properties or suitability for a specific purpose cannot be derived from this. Any industrial property rights as well as existing laws and regulations must always be observed by the user on his own responsibility. With the publication of this data sheet, all previous data sheets lose their validity.

