

**MIG DHMb® Lining System**

**Exterior Application**

# MIG-ESP® Exterior

Active facade coating

[www.innoradar.eu](http://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 (infrared reflection)
- ✓ extends the lifespan of facades
- ✓ reduces CO<sub>2</sub> 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) according to DIN EN 13300.

**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**

Phone: +49 (0) 5258 - 974 82 0

E-Mail: [info@mig-mbh.de](mailto:info@mig-mbh.de)

## Processing and Substrate Pretreatment

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

Do **not** mix **MIG-ESP® Exterior** with other materials.

Before processing, stir the material mechanically for approx. 3 minutes.

Cover all adjacent components well or protect against splashes.

Do not process in direct sunlight, rain or when the relative air humidity is high.

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.

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.

When using rollers or brushes, a dilution with drinking water or **MIG-ESP® Sealing Primer** of max. 2 %, and when using the **MIG-Zip 52** spraying device, a dilution of max. 3 %, is recommended for better processing.

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/60 % 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).

Any structural defects or damages must be remedied before application.

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 fibre 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.**

## Coating Procedure

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

## Technical Data

solvent-free, environmentally friendly and odourless

highly UVA resistant, water-repellent, microporous and non-film forming

Building material class A2 (non-flammable) according to DIN 4102, Part 1 (May 1998)

**Water vapor permeability (S<sub>D</sub> Value)** 0.05 m ± 0.02 according to DIN EN ISO 7783-2 equivalent to V1

**Water absorption after 24 hours (w Value)** < 0.10 kg/m<sup>2</sup>h<sup>0.5</sup> according to DIN EN 1062-3 equivalent to W3

Wet abrasion class II

Opacity class II at approx. 0.25 L/m<sup>2</sup>

Degree of whiteness according to CIE > 95 %

Gloss grade matt (DIN 53778)

pH Value 9.0 (± 1.0)

Density 1.05 g/cm<sup>3</sup> (± 0.10)

Degree of reflection > 90 % for white coating

**Emissivity Value (ε<sub>n</sub>)** 0.315 at 5.5 to 23.3 μm  
0.005 at 1.9 to 3.1 μm  
with FTIR Bruker Vertex 70 according to DIN-EN 12898:2019-06

Crack-filling up to approx. 0.50 mm

SRI Value (Solar Reflectance Index)  
105.1 in low-wind (0 – 2 m/s)  
104.7 in medium-wind (2 – 6 m/s)  
104.4 in high-wind (6 – 10 m/s)

Solar reflectance 0.833 (83.3 %)

Solar absorptance 0.167 (16.7 %)

Heat conductivity λ<sub>dry</sub> 0.158 W/(m\*K)

Processing temperature + 5°C to + 35°C

## 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/m<sup>2</sup> 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 to demonstrate energy efficiency can be done on request.

## Consumption

Depending on the type and porosity of substrate, approx. 0.50 L/m<sup>2</sup> with two coats on smooth surfaces.

**Rough, structured or highly absorbent surfaces can significantly 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

### Coatings

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

### Plasters

MIG 262  
 MIG Therm M 65  
 MIG Therm M 55  
 MIG Thermalife® Ecoplaster  
 MIG-HRP Heat Resistant Protector  
 MIG-HRP 280 Bonding Agent  
 MIG Therm L 14

### 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)  
 MIG-ESP® Bitumen Primer

### Sealing

MIG Sealer

### Impregnation

MIG Impreg. Agent for Natural Stone Facades

## Warranty

We provide a 10-year colour tone guarantee on our exterior coating **MIG-ESP® Exterior**. This guarantee applies exclusively to the product applied to surfaces by specialist firms and not to the associated services, subject to compliance with our warranty conditions. A complete chain of evidence of correct application 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 carrying out 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.