

# Amphisil

## Siloxane-reinforced, matt façade paint with silicate characteristics.

### Product Description

#### Field of Application:

For high-grade exterior coatings, providing high protection against driving rain. Particularly suitable for coating mineral renders/plasters. Amphisil coatings are highly efficient. By thinning the material with CapaSol LF primer for application on sound, solid substrates a special priming coat can be omitted, in the majority of cases.

#### Properties:

- Water-thinnable, ecologically compatible, low odour.
- Weatherproof.
- Wet abrasion Class 2 to DIN EN 13 300 ( $\geq 5 - 20 \mu\text{m}$ ), corresponds to scrub-resistance to DIN 53 778.
- Water-repellent to DIN 4108.
- Alkali-resistant, hence unsaponifiable.
- Low tension.
- Easy to apply.
- Due to a special combination of binding agent and pigments, Amphisil incorporates the positive properties of dispersion and silicate paints.

#### Characteristics to DIN EN 1062:

- **Gloss level:** Matt G<sub>3</sub>
- **Dry film thickness:** 100 – 200  $\mu\text{m}$  E<sub>3</sub>
- **Maximum particle size:** <100  $\mu\text{m}$  S<sub>1</sub>
- **Water vapour permeability:** (**s<sub>d</sub>-value**): < 0.07 m (high) V<sub>1</sub>
- **Water permeability:** (**w-value**): > 0.5 [ $\text{kg}/(\text{m}^2 \cdot \text{h}^{0.5})$ ] (high) W<sub>1</sub>

Tinting may cause variations.

#### Vehicle:

Synthetic resin dispersion to DIN 55 945 + siloxane.

#### Density:

Approx. 1.6 g/cm<sup>3</sup>

#### Colour:

White.

**Amphisil** can be tinted with CaparolColor or AVA – Amphibolin colourants.

Self-tinted material must be prepared in advance and mixed in order to avoid colour differences.

Quantities of 100 litres or more in individual shades may be ordered ready-tinted from the factory.

**Amphisil** can be tinted to all current colour collections using the ColorExpress tinting machine system.

Brilliant, intensive tones may offer a lower covering power. It is therefore recommended to apply a first coat in a similar covering pastel tint, based on white. Possibly a second finishing coat may be necessary.

#### Colour Resistance

as per BFS Data Sheet No. 26:

Class: C  
Group: 1



#### Please Note (Status as at Publication):

Keep out of the reach of children. In case of contact with eyes, rinse immediately with plenty of water. Do not breathe spray dust. Do not empty into drains, water courses and onto the ground. Further information: See Safety Data Sheets.

#### Storage:

Cool, but frost-free.

#### Disposal:

Materials and all related packaging must be disposed of in a safe way in accordance with the full requirements of the local authorities. Particular attention should be made to removing wastage from site in compliance with standard construction site procedures. In Germany: Only completely emptied containers should be given for recycling. Dispose containers with residues of liquid material as remnants of water-based paints and dried material as hardened paints waste or via domestic waste.

#### Product Code Paints and Enamels:

M-DF02

#### Substances of Content - Declaration:

Acrylic resin dispersion, titanium dioxide, calcium carbonate, silicates, water, film forming agent, additives, preservative.

#### Package Size - Standard Product:

12.5 litres

#### ColorExpress:

2.5 litres and 12.5 litres



## Application

### Surface Coating System:

#### Priming or Intermediate Coat:

Amphisil diluted with max. 10% of tap (potable) water or 10% of CapaSol LF, depending on the substrate requirements.

#### Finishing Coat:

Amphisil diluted with max. 5% of tap water.

#### Method of Application:

Apply with paint brush, roller and spraying equipment.

#### Airless application:

Spray angle: 50°  
Nozzle size: 0.026" – 0.031"  
Spray pressure: 150 – 180 bar  
Stir up well and sieve the material before airless application.  
Clean tools immediately after use with water.

#### Consumption:

Approx. 160 – 200 ml/m<sup>2</sup> per coat on smooth substrates. On rough-textured surfaces accordingly more. The exact rate of consumption is best established by a trial coating.

#### Lower Temperature Limit for Application and Drying:

+5 °C for material, substrate and ambient air.

#### Drying Time:

At +20 °C and 65% relative humidity: surface-dry and recoatable after 4 – 6 hours. Completely dry and ready for stress after approx. 3 days.  
Lower temperatures and higher humidity extend the drying time.

#### Note:

Amphisil should not be applied under glaring sun, on sun-heated surfaces, during strong wind, fog, high relative humidity, or imminent rain or frost.

To avoid lapping, the material should be applied wet-on-wet and without interruption. Do not apply on horizontal surfaces exposed to rain or moisture.

Facades in special climatic conditions (e.g. high degree of moisture) or subjected to a higher influence of atmospheric exposure: It is recommended to apply our special products, e.g. ThermoSan, Amphibolin-W or Duparol-W, provided with algicidal and fungicidal agents to counteract the forming of organic growth (fungi & algae). Mechanical loads/scratching on matt facade paints in dark shades may produce bright-toned stripes as a product specific property (no writing resistance). They disappear under the influence of moisture, e.g. rain.

In case of moist weather conditions (rain, dew, fog) yellowish transparent traces of additives, showing a slightly glossy shine and stickiness, may occur on the surface of compact, cool substrates or by means of delayed drying caused by the weather. The traces of additives are water-soluble and will disappear under the influence of a sufficient water quantity, e.g. repeated intensive rainfalls.

The quality of the dried coating will not be affected by these changes.

In case of direct reworking, all traces of additives must be pre-wetted and completely removed after a short reaction time.

An additional priming coat of CapaGrund Universal must be applied.

The traces cannot occur when the material is applied under suitable climatic conditions.

## Suitable Substrates and their Preparation

The substrate must be sound, dry, clean, and free from all materials that may prevent good adhesion.

In Germany: Follow VOB, part C, DIN 18 363, paragraph 3.

### Renderers/Plasters

#### Class P II Lime-Cement Mortars

#### Class P III Cement Mortars:

New renders/plasters must be left untreated for a sufficiently long time, normally for 2 weeks at 20 °C and 65% relative humidity. Adverse weather conditions, influenced e.g. by wind or rain, extend the curing process and a correspondingly longer idle period must be respected.

The risk of calcareous efflorescence can be reduced by an additional priming coat of CapaGrund Universal and the finishing render/plaster coat may be coated after an idle period of 7 days.

Existing renders/plasters: Repairs must have adequate time to cure and dry.

Apply a priming coat of OptiGrund E.L.F. or CapaSol LF on highly porous, absorbent and slightly sanding surfaces.

Prime highly sanding, chalking substrates with Dupa-grund.

Mineral lightweight plasters of mortar group P II: Apply Syllitol or AmphiSilan materials.

### Concrete:

Concrete surfaces with dirt deposits or fines/sintered layer must be cleaned mechanically or with high-pressure jet, in compliance with the regulations.

Apply a priming coat of CapaGrund Universal on slightly absorbent or smooth surfaces.

Apply a priming coat of CapaSol LF on highly porous, slightly sanding or absorbent surfaces

Prime chalking surfaces with Dupa-grund.

### Cement-Bound Wood Chipboards (Particle Boards):

Prime coat of Disbon 481 EP-Uniprimer must be used on highly alkaline cement-bound wood chipboards/particle boards to prevent calcareous efflorescence. (Follow BFS Data Sheet No. 3, paragraph 2.2.5.)

### Fair-Faced Brick Masonry:

Only frost resistant bricks, free of foreign inclusions are suitable for exterior coatings. Masonry must be dry and free of salty efflorescence, jointing must be free of cracks.

Prime with Dupa-grund. If brown discoloration appear on the intermediate coat the material has to be recoated with anhydrous/solvent-based facade paint Duparol (Technical Information No. 150).

### Sound Coatings of Matt Dispersion Paint:

Wash off existing soiled, chalking layers by high-pressure water jet, in compliance with the regulations.

Apply a first coat of Amphisil, diluted max. 10% with CapaSol LF.

If other cleaning methods are used (washing, wire brushing, hosing with water), prime with Dupa-grund.

### Sound Synthetic Resin-Bound (Organic) Renderers/Plasters:

Clean existing renders/plasters by suitable means. In case of wet cleaning, allow the surface to dry thoroughly before further treatment. Prime with CapaGrund Universal. Coat new renders without pre-treatment.

### Sound Existing Silicate Paints and Renderers/Plasters:

Coat with Syllitol or AmphiSilan materials (Technical Information No. 195 or 145).

### Unsound Mineral Coatings:

Remove the coating completely by sanding off, brushing off, scraping off, using high-pressure water jet or other suitable means, in compliance with the regulations.

In case of wet cleaning allow the substrate to dry thoroughly before further treatment.

Prime with Dupa-grund.

### Unsound Coatings of Enamel, Dispersion Paint or Synthetic Resin-Bound (Organic) Render/Plaster:

Remove completely by suitable means, e.g. mechanically or with paint stripper and then clean the surface with a high-pressure steam jet in compliance with the regulations.

Apply a priming coat of CapaGrund Universal on slightly absorbent or smooth surfaces.

Apply a priming coat of Dupa-grund on chalking, sanding, absorbent surfaces.

### Surfaces contaminated with Industrial Gases or Soot:

Coat with anhydrous / solvent-based exterior paint Duparol (Technical Information No. 150).

### Surfaces with Mildew/Mould and Algae Attack:

Coat with the special fungicidal and algicidal facade paint Amphibolin-W (Technical Information No. 105).

### Cracks in Render/Plaster or Concrete:

Repair with Cap-elast (Technical Information No. 160).

### Unpainted Sand-Lime Brick Masonry:

Coat with Syllitol or AmphiSilan materials (Technical Information No. 195 or 145).

### Surfaces with Salty Efflorescence:

Remove salty efflorescence thoroughly by dry wire brushing and prime with Dupa-grund.

Coating of such surfaces must be considered a risk for which we cannot accept responsibility, since even after the most thorough treatment the efflorescence may recur.

### Defects:


Repair small defects with Caparol-Fassaden-Feinspachtel, deeper damages up to 20 mm preferably with Histolith Renovierspachtel and prime repaired areas subsequently. Follow Technical Information No. 710 and No. 1029.

## Technical Assistance

As it is impossible to list herein the wide variety of substrates and their specific problems, please request our technical assistance in case of queries.

We will describe appropriate working methods, if a substrate not specified above is to be coated.

### Customer Service Centre:

 (+49) 06154 / 711710

Fax No.: (+49) 0 6154 / 711711

e-mail: kundenservicecenter@caparol.de

### International Distribution:

Please see [www.caparol.com](http://www.caparol.com)

---

## Technical Information No. 118 - Revised: November 2009

All suggestions and application instructions herein are based on our latest technical experience. Due to the wide variety of individual project conditions, we cannot be held responsible for their content. These instructions do not release the purchaser/applicator from his responsibility to determine the suitability of the product in consideration of the project characteristics. These instructions are to be considered void when a new edition is released. Our general conditions of sale and delivery in their latest edition apply. This Technical Information is a translation of our German Technical Information No. 118 Amphisil · Issued: October 2008

**CAPAROL Farben Lacke Bautenschutz GmbH** · Roßdörfer Straße 50 · D-64372 Ober-Ramstadt · Tel. + 49 (061 54) 71-0 · Fax + 49 (061 54) 71 13 91 · Internet: [www.caparol.com](http://www.caparol.com)  
**Berlin Office** · Schnellerstraße 141 · D-12439 Berlin · Tel. +49 (030) 63 94 6-0 · Fax +49 (030) 63 94 62 88

DAW International Business: **Deutsche Amphibolin-Werke von Robert Murjahn Stiftung & Co KG** · P.O.B. 1264 · D-64369 Ober-Ramstadt · Tel. +49 (061 54) 71-12 74  
Fax +49 (061 54) 71-12 64 · E-mail [export@daw.de](mailto:export@daw.de) · Internet [www.caparol.com](http://www.caparol.com)