

# Amphibolin

**Emission-minimised, solvent-free, universal paint with outstanding adhesion on most substrate types. Paint of the new generation for exterior and interior use.**



## Product Description

### Field of Application:

Multipurpose, emission-minimised and solvent-free exterior and interior paint with outstanding adhesive strength on nearly all substrates.

For weatherproof exterior coatings on smooth and finely textured substrates, giving higher protection against aggressive air pollutants.

Universal exterior paint for application on mineral renders/plasters of mortar groups PII and PIII, concrete, sand-lime bricks, fair-faced brick masonry, fibre-cement boards, sound existing paint coatings, galvanised surfaces, rigid PVC and wooden parts of unstable shape.

Heavy-duty, scrub-resistant, texture preserving interior paint. Particularly suitable for highly stressed coatings on Capaver glass-fibre wall coverings. Due to its high degree of light reflection, suitable for dimly-lit halls, corridors, staircases, storerooms, workshops and underground car parks.

### Properties:

- Emission-minimised and solvent-free.
- Free of fogging-active substances.
- Water-thinnable, ecologically compatible, low odour.
- Weatherproof.
- Wet-abrasion resistance **Class 1** to DIN EN 13 300; < 5 µm at 200 strokes, corresponds as scrub-resistant to DIN 53 778.
- Opacity/covering power Class 2, with a usage of 8 m<sup>2</sup>/litre or 120 ml/m<sup>2</sup>
- Driving-rain resistant, water repellent to DIN 4108.
- High adhesion.
- Non-yellowing.
- Alkali-resistant, hence unsaponifiable.
- Thin-layered, texture preserving.
- Highly washable and resistant to aqueous disinfectants and household cleaning agents.
- Easy to apply.
- Pigments with photocatalytic effect.

### Packaging - Standard Product:

2.5 l, 5 l and 12.5 litres

**Airfix:** 25 litres

Ready to use for economic roller and spray application with airless units.

**ColorExpress:**

1.25 l, 2.5 l, 5 l, 7.5 l and 12.5 litres

### Characteristics to DIN EN 1062:

- **Gloss level:** Silk-matt (semi-matt) G<sub>2</sub>
- **Dry film thickness:** 50 – 100 µm E<sub>2</sub>
- **Maximum particle size:** <100 µm S<sub>1</sub>
- **Water vapour permeability (s<sub>d</sub>-value):** ≥ 0.14 m to ≤1.4 (medium) V<sub>2</sub>
- **Water permeability (w-value):** ≤ 0.1 [kg/(m<sup>2</sup> · h<sup>0.5</sup>)] (low) W<sub>3</sub>
- **CO<sub>2</sub> protection:** > 50m C<sub>1</sub>

Tinting may cause variations.

### Vehicle:

100% pure acrylate. Synthetic dispersion to DIN 55 945, containing wet-adhesion-promoter to achieve optimum adhesive strength.

### Density:

Approx. 1.4 g/cm<sup>3</sup>

### Colours:

White and "Red Sandstone".

**Amphibolin** can be tinted with AVA – Amphibolin colourants or with CaparolColor. Add max. 10% AVA or CaparolColor for application on non-absorbent substrates, e.g. rigid PVC or galvanised surfaces. 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.



emission-minimised solvent-free free of softeners



**Amphibolin** can be tinted to all current colour collections via ColorExpress tinting machine system.

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

### Colour Resistance as per BFS Data Sheet No. 26:

Class: A

Group: 1 - 3, according to the shade

### Please Note (Status: September 2008):

Keep out of reach of children. In case of contact with eyes, rinse immediately with plenty of water. In case of spray application: Do not breathe spray dust. Do not empty into drains, water courses or 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 of liquid materials as disposal of water-based paints, dried materials as hardened paints or via domestic waste.

### Product Code Paints & Enamels: M-DF01

### Substances of Content - Declaration:

Acrylic resin dispersion, titanium dioxide, silicates, water, additives, preservative.



## Application

### Surface Coating System:

#### First or Intermediate Coat:

Apply Amphibolin undiluted or diluted with max. 5% of tap (potable) water.

#### Finishing Coat:

Apply Amphibolin undiluted or thinned with max. 5% of tap water. On rough-textured substrates the first or intermediate and finishing coats should be diluted 5% and spread out well.

#### Method of Application:

Apply with brush, roller or spray equipment. Prime slightly absorbent and non-absorbent substrates with CapaGrund Universal.

#### Airless application:

Spray angle: 50°  
Nozzle size: 0.018" – 0.026"  
Spray gun pressure: 150 – 180 bar  
Stir and sieve well before application.

#### High-pressure application:

Nozzle size: 2 mm  
Pressure: 3 bar

Clean tools immediately after use with water.

#### Consumption:

Approx. 120 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.

#### Minimum Temperature for Application and Drying:

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

#### Drying Times:

At +20 °C and 65% relative humidity surface-dry and recoatable after 4 – 6 hours, rainproof after 24 hours. Completely dry and ready for stress after approx. 3 days. Lower temperatures and higher humidity extend the drying time.

#### Note:

The materials should not be applied in direct sunlight or on sun heated substrates, during strong wind, fog or rain, high relative humidity or imminent rain or frost, etc.

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.

On rough-textured substrates the use of matt Caparol paints, e.g. Muresko, Amphisil, AmphiSilan or Syllitol facade paint is recommended for aesthetic reasons.

Due to the use of Caparol-Tiefgrund TB in the interiors, a typical solvent odour is released, hence proper ventilation must be provided during application and drying. Use low aromatic, low odour AmphiSilan-Putzfestiger in sensitive areas.

Facades in special climatic conditions (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 special agents delaying 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.

## Suitable Substrates and their Preparation

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

Follow VOB, part C, DIN 18 363, para. 3.

## Exterior Surfaces

### Renders/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 correspondingly longer holding times 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 a waiting time of 7 days.

#### Existing renders/plasters:

Repairs must have adequate time to cure and dry.

Highly porous, absorbent, slightly sanding renders/plasters:

Apply one priming coat of OptiGrund E.L.F. or CapaSol LF.

Prime highly sanding, chalking renders/plasters with Dupa-grund.

Coat mineral lightweight renders/plasters of mortar group (class) P II with Syllitol or AmphiSilan materials.

### Concrete:

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

Apply a priming coat / covering undercoating of Amphibolin, diluted max. 5% with tap water, on slightly absorbent or smooth surfaces.

Apply a priming coat of OptiGrund E.L.F. or CapaSol LF on surfaces with high absorbency.

Prime chalking substrates with Dupa-grund.

### Uncoated Fibre-Cement Slabs:

Prime smooth, slightly absorbent slabs with Amphibolin, diluted max. 5% with tap water.

Prime weathered, highly absorbent slabs with Dupa-grund.

Prime free-standing slabs on both sides as well as on all edges.

In Germany: Follow BFS Data Sheet No. 14 for coatings on asbestos cement slabs.

Prime new, highly alkaline fibre-cement slabs with Disbon 481 EP-Uniprimer, to prevent the forming of calcareous efflorescence.

### Fibre-Cement Slabs with Silicate-Based Coating, e.g. Glasal Boards:

Check for adhesion and prime with Disbon 481 EP-Uniprimer.

In Germany: Follow BFS Data Sheet No. 14 for coatings on asbestos cement slabs.

### Cement-Bound Wood Chipboards:

Due to the high alkalinity of cement-bound wood chipboards (particle boards) a priming coat of Disbon 481 EP-Uniprimer must be applied, to prevent the forming of calcareous efflorescence. (In Germany: Follow BFS Data Sheet No. 3, paragraph 2.2.5)

### Sound Coatings of Enamel or Dispersion Paint:

Roughen (sandpaper) the surface of glossy coatings or enamels.

Wash off old chalking layers, dirt, etc. by high-pressure water jet, manually washing or by any suitable method, in compliance with the regulations.

Apply a priming coat of Amphibolin, diluted max. 5% with tap water.

### Sound Existing Coatings of Plasto-Elastic Dispersion Paint, e.g. Cap-elast:

Clean soiled, chalking layer by high-pressure water jet, manually washing or by any other suitable method, in compliance with the regulations. Allow substrates to dry well. Apply Amphibolin on such surfaces either exclusively in white or pastel to medium shades (luminosity > 60).

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

Clean existing renders/plasters by suitable means, e.g. wet cleaning, in compliance with the regulations. Allow surfaces to dry well. Apply a priming coat of Amphibolin, diluted up to max. 5% with tap water.

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

Remove existing coatings completely by suitable means, e.g. mechanically or with paint stripper. If paint stripper is used, clean the surface with a high-pressure steam-jet in compliance with the regulations and allow to dry well.

Apply a priming coat of Amphibolin, diluted max. 5% with tap water.

Prime highly absorbent, sanding substrates with Dupa-grund.

### Unsound Mineral Coatings:

Remove the coating completely by brushing off, scraping off, wet-blasting or other suitable method in compliance with the regulations.

Allow the substrate to dry well and prime with Dupa-grund.

### Unpainted Wooden Parts of Unstable Shape:

Remove resin galls and exuded resin from new wood/timber. Wash tropical, grease containing wood with nitro thinner.

Remove weathered wood layers completely.

Coat only sound wood with a limited moisture content: Max. 12% for hardwood, max. 15% for coniferous wood / softwood.

Prime with Capalac Holz-Imprägniergrund.

If discolouration may occur, an intermediate coat with Capacryl-Holz-IsoGrund is necessary.

### Galvanised Surfaces:

Clean the surface with an ammonia-potash based wetting agent and by corundum plastic fleece. Then wash thoroughly with clean water.

In Germany: Follow BFS Data Sheet No. 5.

Apply a priming coat of Amphibolin, diluted max. 5% with tap water.

Coloured coatings on galvanised surfaces may cause white efflorescence at higher humidity. In such cases remove efflorescence with a dry brush and apply an additional coat of Amphibolin.

### Rigid PVC:

Clean thoroughly and slightly sandpaper the surface.

Apply a priming coat of Amphibolin, diluted max. 5% with tap water.

In Germany: Follow BFS Data Sheet No. 22.

### **Coil Coatings:**

Clean the surface with an ammonia-potash based wetting agent.

Apply a priming coat of Amphibolin.

**Note:** Silicone containing Coil Coatings cannot be coated. Always apply a trial coating on site and check for adhesion.

### **Fair-Faced Brick Masonry:**

Only absorbent clinker bricks of frost resistant quality and free of foreign inclusions are suitable for exterior coatings. Masonry must be dry and free of salts/salty efflorescence, jointing must be free of cracks. Apply a priming coat of Amphibolin, diluted up to 5% with tap water. If brown discolouration appears on this first coat, then recoat with anhydrous / solvent-based facade paint Duparol (Technical Information No. 150).

### **Surfaces Contaminated with Industrial Emissions or Soot:**

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

### **Surfaces Infested with Organic Growth (Fungi or Algae):**

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

### **Cracks in Renders/Plasters or Concrete:**

Coat with the crack covering system Cap-elast (Technical Information No. 160).

### **Surfaces with Salty Efflorescence:**

Remove salty efflorescence thoroughly with a dry brush 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 in mineral substrates 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.

## **Interior Surfaces**

### **Renders/Plasters**

**Class P II Lime-Cement Mortars**

**Class P III Cement Mortars:**

Firm, normally absorbent renders/plasters can be coated without any preliminary treatment.

Prime highly porous, sanding, absorbent renders/plasters with OptiGrund E.L.F. or CapaSol LF.

### **Gypsum Plasters and Ready-Mixed Gypsum Plasters of Mortar Group P IV:**

Grind-off the sintered layer and remove dust. Prime with Caparol-Tiefgrund TB.

### **Gypsum Building Boards:**

Prime absorbent boards with OptiGrund E.L.F. or Caparol-Tiefgrund TB.

### **Gypsum Plasterboards:**

Grind off putty-burrs. Prime and strengthen soft and sandpapered gypsum areas (repairs) with Caparol-Tiefgrund TB. Boards containing water-soluble and discolouring substances must be primed with Caparol AquaSperrgrund fine. Follow BFS Data Sheet No. 12, part 2.

### **Concrete:**

Remove residues of separating agents and sanding, powdery substances/fines that may prevent adhesion.

### **Autoclaved Aerated Concrete (AAC):**

Prime AAC with a 1 : 3 mixture of Capaplex and tap water.

### **Fair-Faced Brick and Sand-Lime Brick Masonry:**

Coat without any pre-treatment.

### **Sound Existing Coatings:**

Matt, slightly absorbent coatings may be treated without a preliminary preparation. Roughen glossy surfaces and enamel coatings.

### **Unsound Existing Coatings:**

Unsound enamels and dispersion (emulsion/latex) paints or synthetic resin-bound renders/plasters must be removed. Slightly absorbent, smooth surfaces can be directly coated.

Prime highly porous, sanding or absorbent surfaces with OptiGrund E.L.F. or CapaSol LF.

Remove unsound mineral coatings by mechanical means and remove dust. Then prime with Caparol-Tiefgrund TB.

### **Distemper Paints:**

Remove by washing and prime with Caparol-Tiefgrund TB.

### **Unpainted Wood-Chip, Ingrain or Embossed Wallpapers:**

Coat without any pre-treatment.

### **Non-Adherent Wallpapers:**

Remove completely. Wash off the remnants of wallpaper-paste and lining. Prime with Caparol-Tiefgrund TB.

### **Mildewed Surfaces:**

Remove coverings of mould by wet-cleaning. Then treat the surfaces with Capatop or FungiGrund and allow to dry well. Apply a finishing coat of Indeko-W, Malerit-W or Fungitex-W on badly infested surfaces in compliance with legal and official regulations (follow e.g. Biocidal Products Directive and Ordinance on Hazardous Substances).

### **Surfaces Stained with Nicotine, Water, Soot or Fat/Grease:**

Remove nicotine, soot or fat/grease stains by washing with tap water adding a grease-dissolving household cleaning agent, then allow the substrate to dry well.

Clean dried-up water stains by dry brushing. Apply an insulating coat of Caparol AquaSperrgrund fine (Technical Information No. 384).

Apply a finishing coat of Caparol IsoDeck on highly soiled surfaces (Technical Information No. 848).

### **Wood and Derived Timber Products:**

Apply an undiluted priming coat of Amphibolin.

Apply an insulating priming coat of Capacryl-Holz-IsoGrund on wood or derived timber products where discolouration may occur.

### **Small Defects:**

After having completed suitable preparatory work, repair small defects with Caparol Akkordspachtel, observing the manufacturers' instructions for processing. Prime subsequently, if necessary.


## **Advice**

### **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

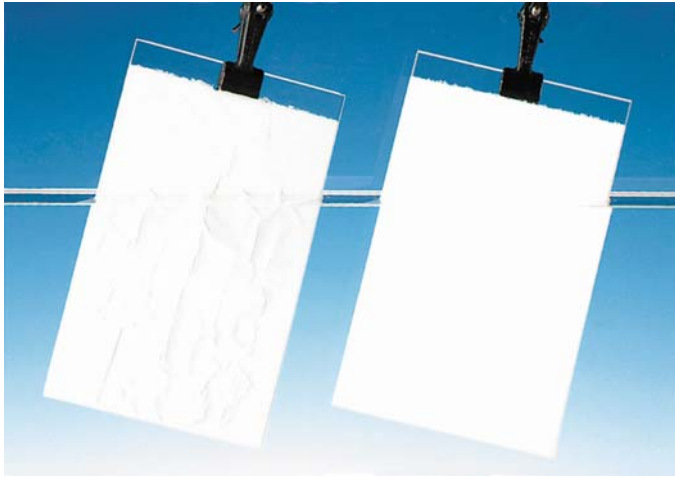
Fax No.: (+49) 0 6154 / 711711

e-mail: kundenservicecenter@caparol.de

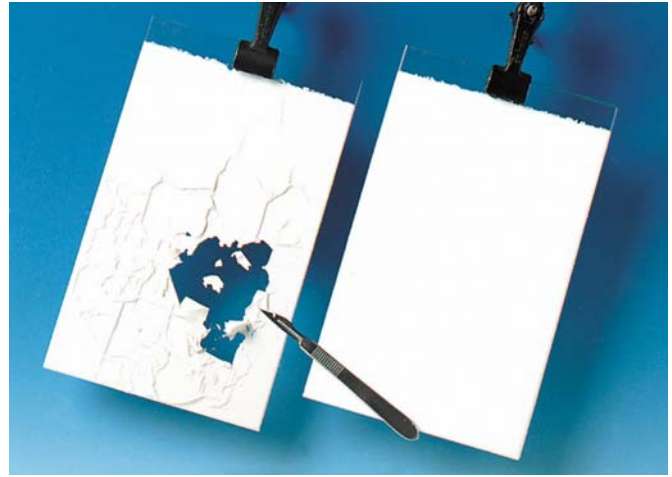
### **International Distribution:**

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

The »wet adhesion promoter«, embedded in Amphibolin as demonstrated in our laboratory test on glass plates, prevents the swelling up of binding agent in extremely moist conditions, so that the coatings are permanently prevented from bubbling and exfoliation/peeling off.



*On the left: Conventional exterior dispersion paint, on the right: Amphibolin.*



*On the left: Conventional exterior dispersion paint, on the right: Amphibolin.*

#### **Technical Information No. 100 - Revised: September 2008**

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 document is a translation of our German Technical Information No. 100 Amphibolin · issued: May 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)