

# Technical Information

## Permarock Silicone<sup>Ultra</sup> Façade Coating



High-performance Silicone resin nano-quartz coating for exterior surfaces.

### Product Description

#### Field of Application:

A high-tech façade paint with organically crosslinked nano-quartz particles. The fully drained paint forms a compact, mineral-hard, quartz matrix structure which provides enhanced resistance to soiling, keeping facades cleaner for longer. The special silicone resin / binder combination generates water-repellent, highly water vapour permeable façade paint coatings on mineral and synthetic resin-bound (organic) renders/plasters, coated or uncoated. Permarock Silicone<sup>Ultra</sup> Façade Coating is suitable for all types of external render and plaster surfaces including silicones, acrylics, silicate-based and lime-cement renders / plasters.

#### Properties:

- Contains a film preservative which is effective against algal, fungal (mould / mildew) attack
- Alkali-resistant. Unsaponifiable
- Highly CO<sub>2</sub> permeable
- Non film-forming. Microporous
- Fine crack filling properties
- Contains special pigments with a photocatalytic effect to break down dirt particles on treated surfaces.

#### Product Base / Vehicle:

Combined silicone resin emulsion and new type hybrid binder: organic / inorganic

#### Pack size:

12.5 litre plastic pail.

#### Colour:

- White - Can be tinted to colour shades from the Permarock Façade A1 colour range.
- Colour (fade) resistance according to German BFS Data Sheet No. 26:
- Class: A
- Group: 1

#### Gloss Level:

Matt (flat) G<sub>3</sub>

#### Storage:

Keep in a cool, frost-free storage location.

#### Shelf Life:

Unopened containers: 12 months from date of manufacture.

#### Product Code:

156/COL

#### Technical Data:

Characteristics according to DIN EN 1062	
Density:	approx. 1.5 g/cm <sub>3</sub>
Maximum particle size:	< 100 µm, S <sub>1</sub>
Dry film thickness:	100 - 200 µm, E <sub>3</sub>
Water permeability (w-value):	≤ 0.1 kg m <sub>2</sub> h <sub>0.5</sub> (low; W <sub>3</sub> )
Water vapour permeability (Sd):	< 0.14 m (high), V <sub>1</sub>

## Application

### Preparation of Substrates:

#### **New and existing, stable External Wall Insulation systems with synthetic resin-bound renders / plasters, silicone resin render / plaster, lime plaster and lime-cement render / plaster:**

Clean existing renders / plasters by suitable wet-cleaning means (e.g. low pressure washing, temperatures up to 60 °C, pressure max. 60 bar). Treat all organic growths (algae, mould, etc.) with Permarock Moss & Mould Remover. Allow to dry thoroughly.

#### **New lime plaster, lime-cement mortars and cement mortars / plasters:**

New renders must be left untreated for a minimum of 2 weeks (at 20 °C / 65%RH) and must be fully cured before the application of the coatings. The risk of efflorescence (lime bloom) on alkaline / cement-based renders can be minimised by the application of a suitable alkali-resistant priming coat which will also allow coating application after a shorter waiting time (7 days). Prime with Permarock Silicone<sup>Ultra</sup> diluted by the addition of 10% Permarock Amphisilan-Tiefgrund LF.

#### **Existing cement-based and lime-cement-based renders / plasters:**

Allow any repairs to dry and cure fully. On highly porous, absorbent, slightly sanding surfaces apply a priming coat of Amphisilan-Tiefgrund LF to satisfy the absorbency of the substrate.

#### **New silicate renders / plasters:**

Prime surfaces with a suitable priming coat appropriate to the existing render or plaster type. Refer to Permarock for advice.

#### **Existing silicate coatings and renders / plasters:**

Clean adherent, sound, stable coatings mechanically or with high pressure water jetting. Remove unsound, weathered coatings by abrading, sanding, scraping or other suitable means back to a sound surface. Clean off all dust, etc., and allow surfaces to dry thoroughly. Prime with Permarock Amphisilan-Putzfestiger.

#### **Cement-bonded Particle Board / Cement-based Building Boards:**

Apply a priming coat of Disbon 481 EP-Uniprimer (2 part epoxy resin-based priming coat) on highly alkaline cement-bound/cement-based boards to prevent calcareous efflorescence. Apply an intermediate coat of Permarock Silicone<sup>Ultra</sup> diluted by the addition of 10% Amphisilan-Tiefgrund LF.

#### **Fair-faced Brickwork:**

Only frost-resistant bricks free from foreign inclusions should be coated. Masonry must be dry and free from efflorescence /

salty deposits. Joints must be sound and crack-free. Apply a priming coat Amphisilan-Putzfestiger. If brown discolouration appears, recoat with a suitable solvent-borne deep primer. Sand-lime bricks shall be primed with Amphisilan-Tiefgrund LF.

#### **Sound, existing dispersion / emulsion paints:**

Clean soiled, chalked coats of paint by pressure washing. Allow to dry, then prime with CapaGrund Universal. Surfaces that exhibit chalking, dusting, sanding, etc., (e.g. after mechanically cleaning) should be primed with Amphisilan-Putzfestiger.

#### **Sound / stable acrylic-or silicone synthetic resin coatings, renders or plasters:**

Clean existing surfaces by suitable means. Treat all organic growths (algae, mould, etc.) with Permarock Moss & Mould Remover. Allow to dry thoroughly.

#### **Unsound emulsion / dispersion coatings:**

Remove completely by suitable means. Clean down the surfaces using pressure washing or steam jetting. Prime with Permarock Silicone<sup>Ultra</sup> diluted by the addition of 10% Amphisilan-Tiefgrund LF.

#### **Suitable Substrates:**

Substrates must be sound / stable, dry, clean and free from all materials that may prevent good adhesion.

#### **Method of Application:**

Permarock Silicone<sup>Ultra</sup> Façade Coating can be applied by brush or roller.

#### **Preparation of Material:**

Permarock Silicone<sup>Ultra</sup> Façade Coating should be thoroughly stirred before use. Ensure that all material for an elevation is from the same batch. If more than one batch of material is to be applied to the same elevation, it should be thoroughly mixed together to ensure uniformity of colour.

#### **Priming or Intermediate Coat**

Permarock Silicone<sup>Ultra</sup> Façade Coating diluted up to max. 10% with clean (potable) water. In most cases, an additional priming coat can be omitted if the first coat comprises Permarock Silicone<sup>Ultra</sup> Façade Coating diluted by max. 10% with Amphisilan-Tiefgrund LF.

#### **Finishing Coat (Topcoat)**

Permarock Silicone<sup>Ultra</sup> Façade Coating diluted up to max. 5% with clean (potable) water.

Allow a minimum drying time of 12 hours between coats.

#### Application Conditions:

Minimum +5 °C for substrate, material and air. Do not apply onto sun-heated surfaces, during rainfall, fog, during strong wind or in rainfall, high relative humidity, etc., or when any of the above conditions are imminent.

To avoid lapping, always work to a wet edge, without interruption. Do not apply to horizontal surfaces exposed to rain or moisture.

#### Consumption:

Approx. 150 - 200 mls/m<sup>2</sup> per coat on an even / smooth substrate. On rough textured surfaces, correspondingly more. The exact rate of consumption is best determined by a trial application

#### Drying / Drying Time:

At + 20 °C / 65% relative humidity the material is surface dry after 2-3 hours and recoatable after approx. 12 hours.

Completely dry and ready for stress after approx. 3 days. Lower temperature and / or higher humidity extends the drying time. Lower temperatures and higher humidity extend the drying time.

#### Tool Cleaning:

Clean tools with water immediately after use.

#### Note:

This product is provided with a preservative against deterioration in the coating film due to algae and mould / mildew growth (fungal attack) for prolonged, but not unlimited, protection. The longevity of this effect is dependent on the exposure conditions and degree of organic infestation. A permanent protection cannot be guaranteed.

Mechanical loads / scratching on matt façade coatings in dark colours / shades may produce bright-toned stripes as a product specific property (low writing resistance).

In moist / damp weather conditions yellowish transparent traces of additives, showing a slight glossy shine and stickiness, may occur on the surface. The traces are water-soluble and will disappear under the influence of repeated bouts of intensive rainfall. The quality of the dried coating is unaffected by these changes. All traces must be removed before application of further priming coats and top coats. Such traces do not occur if material is applied under favourable conditions.

## Advice

#### Further details :

See material safety data sheet

**Technical Information Permarock Silicone<sup>Ultra</sup> Façade Coating Issue: November 2021** 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 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.

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