

Muresko CoolProtect

Silicone emulsion facade paint with **Total Solar Reflectance TSR*** in dark colour shades for high-grade thermal insulated walls.



Product Description

Field of Application	<p>*) TSR: Special pigment preparation reflecting near infrared (NIR) sunlight and adjacent visible light. A lower surface heating is effected.</p> <p>High-grade thermal insulated substrates, like ETICS based on EPS-Dalmatiner-Fassadendämmplatten (EPS insulating boards) and MW insulating materials, AAC/cellular concrete, insulating plasters, etc., coated in dark shades.</p> <p>The special composition of pigmentation permits less heating in sunlight, as in addition to a portion of the visible sunlight, a large part of the near infrared range (NIR) is reflected.</p> <p>Germany: See "Total Solar Reflectance" by German industrial association "WerkMörtel e.V." For colour shades with lightness index (LI) < 20 the TSR value has to be $\geq 25\%$. Muresko CoolProtect meets this claim even if LI < 10 TSR values of desired colour shades on request. Technical advice by Caparol for TSR values < 25%. For AAC wall panels with sound/stable coatings the TSR value has to be $\geq 30\%$.</p>
Material Properties	<ul style="list-style-type: none"> ■ Water-dilutable, ecologically compatible, low odour. ■ Weather-resistant. ■ Water-repellent according to DIN 4108. ■ Alkali-resistant, hence unsaponifiable. ■ Easy to apply. ■ Excellent covering of edges. ■ This product is provided with an encapsulated preservative against deterioration in the coating film due to algal and fungal attack.
Material Base / Vehicle	Silicone resin + pure acrylic dispersion/emulsion
Packaging/Package Size	■ Special/Individual Colour: 12.5 l
Colours	<p>Muresko CoolProtect is delivered ready-tinted ex factory in the desired dark colour shade. Check tinted product before applying to avoid colour differences.</p> <p>Always use tinted paint of same batch, when applying on seamless surfaces</p> <p>If colour shades with a lower opacity are used, e.g. red, orange or yellow, it is advisable to apply a prime coat (undercoat) of Muresko or CapaGrund Universal, tinted via ColorExpress in a matching priming system colour. Possibly a second finishing coat may be necessary.</p> <p>Colour Resistance according to BFS Data Sheet No. 26: Class: B Group: 1–3, depending on the colour.</p>
Gloss Level	Matt, G ₃
Storage	Keep in a cool, but frost-free place.



Technical Data

Characteristics according to DIN EN 1062:

Tinting may cause variations.

■ Density:	Approx. 1.5 g/cm ³
■ Maximum grit size:	< 100 µm, S ₁
■ Dry film thickness:	100–200 µm, E ₃
■ Water permeability (w-value):	≤ 0.1[kg/(m ² · h ^{0.5})] (low) W ₃
■ Water vapour permeability (sd-value):	≥ 0.14 – < 1.4 m (medium), V ₂

Supplementary Product

Caparol Trocknungsbeschleuniger / Drying Accelerator

Additive to be used at low temperatures from +1 °C up to approx. +10 °C.

Application: Follow the product label.

Suitability according to
Technical Information No. 606
Definition of Application Areas

Interior 1	Interior 2	Interior 3	Exterior 1	Exterior 2
–	–	–	+	+
(–) inapplicable / (○) of limited suitability / (+) suitable				

Application

Suitable Substrates

The substrate must be sound/stable, dry, clean, and free from all substances that may prevent good adhesion. In Germany: Follow VOB, part C, DIN 18363, section 3.

Substrate Preparation

New and Existing, Stable ETICS/EWI Systems with Surfaces of Synthetic Resin-Bound (Organic) Render, Silicone Resin Render, Silicate Render and Lime Cement Plaster (PII) / Minimum Compressive Strength as per DIN EN 998-1: 1.5 N/mm²:

ETICS must be correctly produced in accordance with current processing guidelines and must have a sound reinforcement layer with a thickness of ≥ 4 mm. The reinforcement fabric must be embedded within the upper third of the reinforcement layer.

Connections must be sealed against driving rain and the surface of existing renders must be sound/stable.

Unsound systems, not matching the above mentioned minimum requirements, must first be repaired in a technically correct manner.

Clean existing renders by suitable wet cleaning method. Maximum temperature for high-pressure water jet: 60 °C. Pressure: max. 60 bar. Allow to dry thoroughly. Coat with Muresko CoolProtect according to the type of existing finish render and details for substrate preparation as mentioned below.

Renders in Mortar Groups/Classes PII (Lime-Cement Mortars), PIII (Cement Mortars) / Minimum Compressive Strength as per DIN EN 998-1: 1.5 N/mm²:

New renders must be left untreated for a sufficiently long time, normally for 2 weeks at 20 °C and 65 % relative humidity. Adverse weather conditions, e.g. influenced by wind or rain, extend the curing process and correspondingly longer holding times must be respected. The risk of calcareous efflorescence on alkaline finish renders of mortar classes PII and PIII can be minimised by an additional priming coat of CapaGrund Universal and the finishing render can be coated after a holding time of 7 days.

Existing renders: Repairs must have adequate time to cure and dry. On highly porous, absorbent, slightly sanding renders apply one priming coat of OptiGrund. Prime highly sanding, chalking substrates with Dupa-grund or use AmphiSilan Putzfestiger on ETICS/EWI systems with EPS boards.

Existing Coatings of Silicate Paint and Render:

Clean adherent, sound/stable coatings mechanically or with high-pressure water jet, in compliance with the regulations. Prime with CapaGrund Universal.

Remove unstable, weathered coatings by abrading, sanding/grinding or by scraping off. Prime with AmphiSilan Putzfestiger.

Autoclaved Aerated Concrete (AAC) / Cellular Concrete with Sound Existing Coating:

Clean sound/stable surfaces and apply one priming coat of CapaGrund Universal. See our Disbon products for the renovation of unsound AAC coatings.

Sound/Stable Coats of Emulsion Paint:

Clean soiled, chalking coats of paint by high-pressure water jet, in compliance with the regulations. Apply one priming coat of CapaGrund Universal.

Prime with Dupa-grund or use AmphiSilan Putzfestiger on EPS insulation boards, when other cleaning methods are used (washing, wire brushing, hosing with water).

Sound/Stable Coatings of Synthetic Resin-Bound (Organic) or Silicone Resin Render:

Clean existing coatings by suitable means. Allow wet cleaned surfaces to dry thoroughly before any further treatment.

Unstable Mineral Paint Coatings:

Remove completely by sanding off, brushing off, scraping off, using high-pressure water jet in compliance with the regulations, or treat with other suitable methods. Allow wet cleaned surfaces to dry thoroughly before further treatment. Prime with Dupa-grund or AmphiSilan Putzfestiger.

Unstable Coatings of Emulsion Paint or Synthetic Resin-Bound (Organic) Render:

Remove completely by suitable means, e.g. mechanically or via paint stripper, followed by surface cleaning with a high-pressure steam jet in compliance with the regulations. Apply one priming coat of CapaGrund Universal on slightly absorbent or smooth surfaces. Apply one priming coat of Dupa-grund or AmphiSilan Putzfestiger on chalking, sanding, absorbent surfaces.

Surfaces Soiled by Factory Fumes or Soot:

Coat with solvent-based facade paint Duparol.

Cracks in Render or Concrete:

Coat with PermaSilan or Cap-elast.

Surfaces with Salty Efflorescence:

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

Method of Application

Apply with paint brush or roller.

Surface Coating System

Remove algal and fungal (fungi/mildew/mould) attack by wet blasting, in compliance with the regulations. Use Capatopx or FungiGrund and allow surfaces to dry well.

First/Priming or Intermediate Coat:

Muresko CoolProtect, diluted to a max. of 10 % with tap (potable) water.

When adding max. 10 % of AmphiSilan-Tiefgrund, in most cases an additional priming coat can be omitted in case of overhaul coatings.

Finishing Coat:

Muresko CoolProtect, diluted to a max. of 5 % with tap water. For retaining the surface texture of roughly textured renders dilute the first coat max. 15 – 20 % and the finishing coat to a max. of 10 %.

Consumption

Approx. 200 ml/m² per coat on a smooth substrate. On roughly textured surfaces correspondingly more. Determine the exact amount of material required by coating a test area on site.

Application Conditions

Lower Temperature Limit for Application and Drying:

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

Drying/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

Tool Cleaning

Clean tools/equipment immediately after use with water.

Note

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

To avoid lapping, the product should be applied wet-on-wet and without interruption, and should properly be rolled over again, evenly in one direction.

Do not apply on horizontal surfaces exposed to rain or moisture.

Facades in special climatic conditions (high moisture degree) or subjected to a higher influence of atmospheric exposure: 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, depending on the moisture degree and intensity of organic infestation. A permanent protection cannot be guaranteed.

FungiGrund may be used instead of OptiGrund for substrate preparation on such infested substrates after having finished the cleaning procedure.

Mechanical loads/scratching on matt facade paints in dark shades may produce bright-toned stripes as a product specific property (no writing resistance).

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. Touching up surfaces is depending on many parameters and may be visible after drying. (In Germany: See BFS Data Sheet No. 25)

For paint coatings on ETICS the TSR value has to be $\geq 25\%$.
 For paint coatings on AAC (cellular concrete) wall panels with sound/stable existing coatings the TSR value has to be $\geq 30\%$.
 For all other types of highly insulating materials the specifications (LI/TSR) of related manufacturers must be followed.

Advice

Please Note (Status as at Date of Publication)

Harmful to aquatic life with long lasting effects.
 Keep out of reach of children. If swallowed, seek medical advice immediately and show the container or label (intestinal bacteria can be affected). Do not empty into drains, water courses or into the ground. Ensure good ventilation during use and drying. Do not eat, drink or smoke while using the product. In case of contact with eyes or skin, immediately and thoroughly rinse with water. Clean utensils immediately after use with soap and water. Apply by brush or paint roller only. Further information: See Material Safety Data Sheet (MSDS).

Contains: 1,2-benzisothiazol-3(2H)-one, 2-methyl-2H-isothiazol-3-one. May produce an allergic reaction.

In Germany: Advice for allergy sufferers with isothiazolinone allergy: German hotline 0180/5308928 (0.14 €/minute from German landline, MTS max. 0.42 €/minute).

According to European Regulation 528/2012 this product is defined as a "treated article" (not a biocidal product) and contains the following biocidal substances: Carbendazim (CAS-No. 10605-21-7), Isoproturon (CAS-No. 34123-59-6), Terbutryn (CAS-No. 886-50-0), 2-Octyl-2H-isothiazol-3-on (CAS-No. 26530-20-1).

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 empty containers should be handed in for recycling. Dispose containers with residues of liquid product via waste collection point accepting old paints and enamels. Dispose dried/hardened product residues as construction site/demolition/municipal or domestic waste.

EU limit value for the VOC content

of this product (category A/c): max. 40 g/l (2010). This product contains max. 40 g/l VOC.

Product Code Paints and Enamels

M-SF01F (Germany)

Substances of Content - Declaration

Polyacrylate resin/polysiloxane, titanium dioxide, calcium carbonate, silicates, water, film forming agent, additives, preservatives (Methylisothiazolinon, Benzisothiazolinon), film preservatives (Octylisothiazolinone, Isoproturon, Terbutryn, Carbendazim).

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

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International Distribution: Please see www.caparol.com

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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.210 · Muresko CoolProtect · Issued: October 2015