

# Capalac Dickschichtlack

High solid, anti-corrosive metal protective enamel for priming, intermediate and finishing coats. For exterior and interior use. Certified corrosion protection for steel and galvanised steel according to Building Rules List A part 1, no. 4.9.1



## Product Description

Field of Application	1-pot-enamel for protective thick-film coatings and colourful designing of building components made of iron, steel, zinc, galvanised steel, aluminium, copper, unplasticized (rigid) PVC, wooden parts interiors and dimensionally stable exterior wood components. Corrosion protection for iron and steel. Unsuitable for coatings on roofing and anodised aluminium. Do not use white colour shades on heating systems in order to avoid yellowing (apply Capalac Heizkörperlack /radiator enamel).
Material Properties	<ul style="list-style-type: none"> <li>■ Excellent adhesion</li> <li>■ High opacity (hiding/covering power) on component surfaces and edges</li> <li>■ Durable protection due to excellent weather resistance</li> <li>■ High solids content allows a better dry film thickness</li> <li>■ 1-Pot-Enamel System: Facilitates priming, intermediate and finishing coats with one product</li> <li>■ Test report for corrosiveness category C4, duration of conservation "long" on steel and galvanised steel according to DIN EN ISO 12944 part 6 as per Buildings Rules List</li> <li>■ Available as enamel and mica types</li> <li>■ Can be tinted via ColorExpress in numerous colour shades</li> <li>■ Free of aromatic hydrocarbons</li> </ul>
Material Base / Vehicle	Epoxy ester with non-aromatic solvents.
Packaging/Package Size	<ul style="list-style-type: none"> <li>■ <b>White, Mica and RAL 9006:</b> 750 ml, 2.5 litres, 10 litres and 35 kg</li> <li>■ <b>Copper:</b> 375 ml, 750 ml and 2.5 litres</li> <li>■ <b>ColorExpress:</b> 1 litre, 2.5 litres and 10 litres</li> </ul>
Colours	<ul style="list-style-type: none"> <li>■ <b>Standard:</b> Enamel: White Mica types: Mica and approx. RAL 9006, and Copper (can be tinted to off-shade of copper via ColorExpress).</li> <li>■ <b>ColorExpress:</b> A multitude of enamel and mica tones can be tinted via the ColorExpress stations.</li> </ul> <p>Note: If necessary, apply a transparent sealing coat with Capalac Kunstharz-Klarlack (clear coat) on intensively or dark tinted Capalac Dickschichtlack coatings in order to avoid a slightly abrasion of pigments. Mica types are corrosion-inhibiting coatings. Their surface is matt and semi-rough according to RAL and German National Railways Standard (TL/TP-KOR). An additional transparent sealing coat with Capalac Kunstharz-Klarlack leads to a more stressable surface and cleaning is facilitated.</p>



**Colour Changes Occur With Mica Types:**

In comparison to printed colour fan decks. Between Mica types of different manufacturers. In case of repairs. When different coating methods are used (e.g. paint brush, roller or spray application, powder coating and liquid coating).

**Colour Resistance according to BFS Data Sheet No. 26:**

Binder: Class B

Pigmentation: Group 1 to 3, depending on the colour shade

Gloss Level

■ **Enamel types:**

Silk-matt/semi-gloss (mid sheen)

■ **Mica shades:**

Matt (flat)

■ **Copper:**

Matt (flat)

Storage

Keep in a cool place, in tightly closed cans.

Technical Data

■ Density: Approx. 1.3 g/cm<sup>3</sup>

## Application

Suitable Substrates

Dimensionally stable wood component parts, iron, steel, zinc, aluminium, unplastizised (rigid) PVC, and sound existing paint coatings.

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

Maximum permissible moisture content in dimensionally stable wood: 13 %.

Do not use for coatings on roofing and anodised aluminium.

Substrate Preparation

**Wooden Parts:**

Sand the surface in fibre direction, clean thoroughly, remove exuding wood extractives, e.g. wood resin/rosin and resin galls, cut sharp edges (see BFS Data Sheet No. 18).

**Iron, Steel:**

Derust according to industry standard SA 2 1/2 (blasting) as per DIN EN ISO 12944-4. At low stress conditions (e.g. indoors – without condensation water or aggressive influences) the surface may thoroughly be derusted to purity grade ST 3, either mechanically or manually.

**Zinc, Galvanised Steel:**

Wash with Multistar cleaner using sanding pad or with light ammonia solution or by sweep spraying according to BFS Data Sheet No. 5.

**Unplastizised (Rigid) PVC:**

Wash with Multistar cleaner using sanding pad or with light ammonia solution according to BFS Data Sheet No. 22.

**Aluminium:**

Wash with Multistar cleaner using sanding pad or with nitro-thinner or phosphoric acid solution using sanding pad according to BFS Data Sheet No. 6.

**Copper:**

Wash with Multistar cleaner using sanding pad.

**Existing Coats of Paint:**

Roughen (sand) the surface slightly and/or treat with alkali. Remove unsound coats of paint.

Method of Application

**Guidelines for Spray Application:**

		Ø Nozzle	Pressure	Advice
Airless	Enamel	0.009 – 0.013 inch	180 – 200 bar	Membrane pump and piston pump
	Mica	0.013 – 0.017 inch	180 – 200 bar	Only to be used with piston pump

## Surface Coating System

Substrate	Use	Substrate Preparation	Impregnation	Priming Coat	Intermediate Coat	Finishing Coat
Wood, derived timber products	interior	roughening	–	Capalac Dickschichtlack	if required Capalac Dickschichtlack	Capalac Dickschichtlack
Dimensionally stable wood	exterior	BFS Nr. 18	Capalac Holz-Imprägniergrund			
Iron, steel	interior/ exterior	derust/degrease	–			
Zinc (galvanised substrates)	interior/ exterior	BFS Nr. 5	–			
Aluminium	interior/ exterior	BFS Nr. 6	–			
Copper	interior/ exterior	Multistar/sanding pad	–			
Unplasticised/rigid PVC	interior/ exterior	BFS Nr. 22	–			
Sound existing coats of paint <sup>1)</sup>	interior/ exterior	roughening/alkali treatment	Prepare and prime defects according to the substrate			

Advice: Adhesion must be tested in advance for powder coatings, coil coatings and other critical substrates by a trial coating.

### Application:

Capalac Dickschichtlack can be applied by brush, roller or spraying equipment. Stir well before use and thin with white spirit, if necessary. Mica paints should be applied with spraying equipment in order to achieve an even surface. A blushing effect may occur on large areas, e.g. when application is divided into multiple work steps.

### Corrosion Protection on Steel with Capalac Dickschichtlack:

Coating systems for corrosiveness categories C2, C3, C4 according to DIN EN ISO 12944-5 Surface preparation: Blasting to purity grade SA 2½ (DIN EN ISO 12944-4)

No.	Priming Coat	µm <sup>1)</sup>	Intermediate Coat	µm <sup>1)</sup>	Finishing Coat	µm <sup>1)</sup>	Total Reference Layer Thickness µm <sup>1)</sup>	Corrosiveness Category														
								C2 <sup>2)</sup>			C3 <sup>2)</sup>			C4 <sup>2)</sup>								
1	Capalac-Dickschichtlack e.g. RAL 7036	60			Capalac-Dickschichtlack e.g. RAL 7036	60	120	Blue	Blue	Blue	White	White	White	White	White	White	White	White	White	White	White	White
2	Capalac-Dickschichtlack Mica	80			Capalac-Dickschichtlack Mica	80	160	Blue	Blue	Blue	Blue	Blue	Blue	White	White	White	White	White	White	White	White	White
3	Capalac-Dickschichtlack e.g. RAL 7036	60	Capalac-Dickschichtlack e.g. RAL 7036	60	Capalac-Dickschichtlack e.g. RAL 7036	60	180	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	White	White	White	White	White	White	White
4 <sup>3)</sup>	Capalac-Dickschichtlack Mica	80	Capalac-Dickschichtlack e.g. RAL 7036	60	Capalac-Dickschichtlack e.g. RAL 7036	60	200	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue
5 <sup>3)</sup>	Capalac-Dickschichtlack Mica	80	Capalac-Dickschichtlack Mica	80	Capalac-Dickschichtlack Mica	80	240	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue

<sup>1)</sup> Reference layer thickness

<sup>2)</sup> Explanations for corrosiveness categories see below.

<sup>3)</sup> With verification of suitability (Test Report) according to DIN EN ISO 12944 part 6 for system No. 5.

Blue= Suitable

White = Unsuitable

**Corrosion Protection on Galvanised Steel with Capalac Dickschichtlack (Duplex System):**  
 Coating system for corrosiveness category C2, C3, C4 according to DIN EN ISO 12944-5 Surface preparation: "Sweepen" · slightly grit/shot- blasting (DIN EN ISO 12944-4)

No.	Priming Coat	µm <sup>1)</sup>	Intermediate Coat	µm <sup>1)</sup>	Finishing Coat	µm <sup>1)</sup>	Total Reference Layer Thickness µm <sup>1)</sup>	Corrosiveness Category							
								C2		C3		C4			
1*	Capalac-Dickschichtlack e.g. RAL 5010	60			Capalac-Dickschichtlack e.g. RAL 5010	60	120	■	■	■	■	■	■	■	■
2*	Capalac-Dickschichtlack Mica	80			Capalac-Dickschichtlack Mica	80	160	■	■	■	■	■	■	■	■

\* With verification of suitability (Test Report) according to DIN EN ISO 12944 part 6.

### Explanations:

Corrosiveness categories (see DIN EN ISO 12944 part 2)

Category/ Loads	Examples for typical environmental conditions or loads in moderate climate	
	exterior	interior
C2 Low	Atmospheres with low pollution. In the majority of cases rural areas.	Unheated buildings where condensation may occur, e.g. storehouses, sports halls.
C3 Middle (Moderate)	Atmosphere in cities and industrial areas, moderate pollution caused by sulphur dioxide. Coastal areas with low salt loads.	Production rooms with a high humidity and some air pollution, e.g. facilities for the production of foods, laundries, breweries, creameries.
C4 High	Industrial areas and coastal areas with moderate salt loads.	Chemical facilities, swimming pools, bathhouses above sea water.

### Duration of Protective Effect:

(See DIN EN ISO 12944 part 1 and part 5)

Duration of protective effect: This means the lifetime of a coating system up to the first repair. The time spans, mentioned below, are based on experience. They enable the customer to specify a repair program under economic factors. Duration of protective effect in years (no warranty time !)

Time Period	Duration of protective effect (years)
Low (L)	2–5
Middle (M)	5–15
High (H)	over 15

## Consumption

Consumption / Layer Thickness:					
Used Tools	Material Type	Consumption/m <sup>2</sup>	Average Consumption/m <sup>2</sup>	Average Wet Film Thickness	Average Dry Film Thickness
Brush / Roller	Enamel type (unicoloured)	100–125 ml	approx. 115 ml	approx. 115 µm	approx. 65 µm
	Mica and DB colours	125–160 ml	approx. 140 ml	approx. 140 µm	approx. 80 µm
	RAL 9006 and Copper	100–125 ml	approx. 115 ml	approx. 115 µm	approx. 60 µm
Spraying Equipment	Enamel type (unicoloured)	100–125 ml	approx. 115 ml	approx. 115 µm	approx. 65 µm
	Mica and DB colours	150–180 ml	approx. 160 ml	approx. 160 µm	approx. 80 µm
	RAL 9006 and Copper	125–150 ml	approx. 135 ml	approx. 135 µm	approx. 70 µm

These reference values for consumption and layer thickness may vary depending on the nature and condition of the substrate. The exact rate of consumption is best established by a trial coating.

### Application Conditions

### Lower Temperature Limit for Application and Drying:

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

### Drying/Drying Time

at 20 °C and 65% relative humidity	dust dry	touch dry	recoatable	completely dry
after hours	4	8	24	approx. 5 days

Lower temperatures and higher humidity extend the drying time. Adding 5% by volume of Capalac PU-Härter (hardener) leads to accelerated drying and stressability of the coating.

### Tool Cleaning

Immediately after use with white spirit.

## Advice

### Special Risks (Hazard Note) / Safety Advice (Status as at Date of Publication)

Flammable. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness. Keep out of the reach of children. Keep away from source of ignition – do not smoke. Do not breathe vapour/spray dust (aerosol). Do not empty into drains, water courses or onto the ground. In case of insufficient ventilation, wear suitable respiratory equipment. Use only in well-ventilated areas. If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label. Keep container tightly closed and in a well-ventilated place. Avoid contact with eyes and skin.

Contains 2-Butanonoxime, cobalt carboxylate, Bis (1,2,2,6,6-pentamethyl-piperidyl)sebacat and methyl-(1,2,2,6,6-pentamethyl-4-piperidyl)sebacat. May cause an allergic reaction. Further information: See Safety Data Sheet (MSDS).

### 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 clean containers should be given for recycling. Cans/containers with residues must be sent to the collecting point for old enamels.

### EU limit value for the VOC content

of this product (category A/i): 500 g/l (2010). This product contains max. 490 g/l VOC.

### Product Code Paints and Enamels

M-LL01

### Substances of Content - Declaration

Epoxy resin ester, titanium dioxide, coloured pigments, metal effect pigments, mineral fillers, aliphatics, glycol ether, additives

### Customer Service Centre

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## Technical Information No. 091 · Issue: February 2011

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/appliator 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. 091 · Capalac Dickschichtlack · Issued: January 2011

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