

Capalac Aqua Metallschutz

Emulsion based anti-corrosive enamel for priming, intermediate and top coats, outdoors & indoors. Corrosion protection for steel and galvanised steel as per DIN EN ISO 12944-6.



Product Description

Field of Application

Priming, intermediate & finishing coat (one pot enamel system) for protection and design of exterior & interior parts of building made of iron, steel, zinc, galvanised steel, aluminium and copper. Corrosion protection for iron and steel. Inapplicable on anodized aluminium and roofings.

Material Properties

- Excellent adhesion.
- High opacity on surfaces and edges.
- Durable protection due to high weather resistance.
- One enamel for priming, intermediate and top coat (one pot system).
- Test report for corrosivity categories to C 4 M on steel and C 4 H on galvanised steel as per DIN EN ISO 12944 Part 6.
- Tintable in numerous colours via ColorExpress.
- Suitability for DGNB criterion ENV 1.2 (2012): QS1, QS2; QS3; QS4.

Material Base / Vehicle

Synthetic resin dispersion/emulsion.

Packaging/Package Size

- **White (Weiss):** 750 ml; 2.5 l; 10 l;
- **ColorExpress:** 700 ml; 2.4 l; 9.6 l;

Colours

- **Standard:**
White
- **ColorExpress:**
Can be tinted in numerous colour shades via the ColorExpress stations.

Colour Resistance according to German BFS-Merkblatt (Data Sheet) No. 26:

Binder: Class A
Pigmentation: Group 1 to 3, depending on the colour.

Gloss Level

Silk-matt/semi-gloss (mid sheen; velvet or eggshell-like finish)

Storage

Keep in a cool place.
Keep cans tightly closed.

Technical Data

- **Density:** Approx. 1.3 g/cm³

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

Iron, steel, zinc (galvanised steel), aluminium, copper, stable existing paint coatings.
 The substrate must be clean, sound/stable, dry and free from all substances that may prevent good adhesion.
 Do not use for the coating of roofings and anodized aluminium!
 Existing coatings may require a trial coating and check for proper adhesion. This applies in particular for powder and coil coatings.

Substrate Preparation

Iron, Steel:

Derust to industry standard SA 2½ (blasting) according to DIN EN ISO 12944-4.
 A thorough removal of rust to the degree of purity ST 3 by mechanical means or by hand may be sufficient, if corrosive loads are low (e.g. indoors without any formation of water condensation and other aggressive influences).

Zinc, Galvanized Steel:

Roughen and clean with non-woven web and Multistar, 1 : 5 diluted with tap (potable) water, otherwise use light ammonia solution or prepare via sweeping technique as per German BFS-Merkblatt (Data Sheet) No. 5.

Aluminium:

Roughen/clean with non-woven web and Multistar, 1 : 5 diluted with tap (potable) water. Germany: Follow BFS Data Sheet No. 6.

Copper:

Roughen/clean with non-woven web and Multistar, 1 : 5 diluted with tap (potable) water.

Existing Paint Coatings:

Roughen the surface and/or treat with alkali. Carefully remove all unstable coatings.

Method of Application

Guidelines for Spray Application:

Equipment	Ø Nozzle	Spray Angle	Pressure	Dilution
Airless	0.012 - 0.014 inch	40 - 60 °	200 - 220 bar	undiluted
Caparol-NAST /Wagner XVLP FinishControl 5000	Caparol NAST-Frontend (Colour: blue)	-	full air quantity	10 % with tap water

Prefer spray application for corrosion protection conforming to standards. Check the thickness of the wet film with suitable gauge to achieve/ensure the necessary dry film thickness.
 On large, seamless areas a "clouding" effect may occur with spray coating and is sometimes unavoidable, due to sectioning surfaces in several operation segments.

Surface Coating System

Substrate	Use	Substrate Preparation	Priming Coat	Intermediate Coat	Finishing (Top) Coat
Iron, steel	interior/exterior	derust/degrease	Capalac Aqua Metallschutz	if necessary: Capalac Aqua Metallschutz	Capalac Aqua Metallschutz
Zinc (galvanised steel)	interior/exterior	BFS No. 5			
Aluminium	interior/exterior	BFS No. 6			
Copper	interior/exterior	Multistar/abrasive pad			
Stable existing paint coatings ¹⁾	interior/exterior	roughening/alkali treatment	Prepare and prime defective areas depending on substrate requirements		

Note: Adhesion must be tested in advance for powder coatings, coil coatings and other critical/problematic substrates by trial coatings on site.

Application:

Capalac Aqua Metallschutz can be applied by enamel brush, roller or spraying equipment. Stir thoroughly before use. Spray application should be used to achieve the necessary wet and dry film thickness and protection against corrosion conforming to standards (see following tables/corrosivity categories).

Adhesive Tapes to Limit the Coating:

Remove all adhesive tapes before the coating (film surface) is dry. Otherwise the coating will be raised in border areas, due to the high dry film thickness. Use waterproof adhesive tapes.

Protection against Corrosion on Steel with Capalac Aqua Metallschutz:

Surface coating systems for corrosivity categories to C2 H, C3 H, C4 M following DIN EN ISO 12944-5.

Surface preparation: Blasting to degree of surface purity SA 2 1/2 (DIN EN ISO 12944-4).
Method of application: Spraying (airless).

No.	Priming Coat	µm ¹⁾	Intermediate Coat	µm ¹⁾	Finishing (Top) Coat	µm ¹⁾	total µm ¹⁾	Corrosivity Categories								
								C2 ²⁾			C3 ²⁾			C4 ⁴⁾		
								L	M	H	L	M	H	L	M	H
1 ³⁾	Capalac Aqua Metallschutz	80	-	-	Capalac Aqua Metallschutz	80	160	+	+	+	+	+	-	-	-	-
2 ³⁾	Capalac Aqua Metallschutz	80	Capalac Aqua Metallschutz	80	Capalac Aqua Metallschutz	80	240	+	+	+	+	+	+	+	+	-

¹⁾	Set value of coating (dry film thickness)
²⁾	Explanations related to corrosivity categories see below.
³⁾	With verification of suitability (test report) as per DIN EN ISO 12944 Part 6 for System No. 1 and 2
⁴⁾	Use for corrosivity categorie C4 High Capalac Dickschichtlack
+	suitable
-	inapplicable

Protection against Corrosion on Galvanised Steel with Capacryl Metallschutz (Duplex System):
 Surface coating systems for corrosivity categories C2 H, C3 H, C4 H following DIN EN ISO 12944-5.
 Surface preparation: Sweeping technique (DIN EN ISO 12944-4).
 Method of application: Spraying (airless).

No.	Priming Coat	µm ¹⁾	Intermediate Coat	µm ¹⁾	Finishing (Top) Coat	µm ¹⁾	total µm ¹⁾	Corrosivity Categories									
								C2 ²⁾			C3 ²⁾			C4			
								L	M	H	L	M	H	L	M	H	
1 ³⁾	Capalac Aqua Metallschutz	80	-	-	Capalac Aqua Metallschutz	80	160	+	+	+	+	+	+	+	+	+	+

1)	Set value of coating (dry film thickness)
2)	Explanations related to corrosivity categories see below.
3)	With verification of suitability (test report) as per DIN EN ISO 12944 Teil 6 for System No. 1
+	suitable
-	inapplicable

Explanations

Corrosivity categories (see DIN EN ISO 12944 Part 2)

Category/Load	Examples for typical ambient conditions or loads in temperature zones.	
	exterior	interior
C2 low	Atmospheres with a low pollution. Mostly rural climate.	Unheated buildings, facilitating condensation, e.g. store-rooms, sports halls.
C3 modest	Urban and industrial climate, modest pollution caused by sulphur dioxide. Coastal regions with low contamination/stress due to salt-water.	Production facilities with high moisture and some air pollution, e.g. facilities for food production, laundries, breweries, creameries.
C4 strong	Industrial areas and coastal regions with a modest contamination/stress due to salt-water.	Chemical installations, swimming pools, bathhouses above sea.

Durability of Protection

(See DIN EN ISO 12944 Parts 1 and 5)

Anticipated period of a coating system (durability) before the first maintenance is required. The given time intervals are experiences that may be helpful for building owners to state a repair schedule under economic considerations.

Durability is no warranty period!

Time Interval	Durability (Years)
Low (L)	2 - 5
Middle (M)	5 - 15
High (H)	over 15

Consumption

Consumption/Coating Thickness:

Application Method	Consumption/m ²	Average Consumption/m ²	Average Wet Film Thickness	Average Dry Film Thickness
Spray application	approx. 200 - 250 ml	approx. 220 ml	approx. 200 µm	approx. 80 µm

Consumption is only a guide value and may vary, depending on substrate requirements. Determine the exact amount of material required by coating a test area on site.

Application Conditions

Low Temperature Limit for Application and Drying:

8 °C for product, ambient air and substrate.

Drying/Drying Time

At 20 °C and 65 % relative humidity (RH)	dust dry	dry to touch	recoatable	cured
after hours	4	8	24	Approx. 10 days per 100 µm of dry film thickness

Lower temperatures and higher humidity extend the drying times.

Tool Cleaning

Immediately after use with clean water.

Advice

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

Toxic to aquatic life with long lasting effects. Keep out of reach of children. Avoid release to the environment. 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. Do not allow product to enter drains, waterways or soil. Clean utensils immediately after use with soap and water. Use P2 dust filter for grinding. Do not breathe spray dust. Use A2/P2 combination filter for paint spraying.
 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: Hotline 0180/5308928 (0.14 €/minute from German landline, MTS max. 0.42 €/minute).

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/i): 140 g/l (2010). This product contains max. 140 g/l VOC.

Giscode

M-LW01 (Germany)

Substances of Content - Declaration

Polyacrylate resin, titanium dioxide, calcium carbonate, zinc phosphate, mineral fillers, water, ester alcohol, glycol ether, additives, preservative (Benzisothiazolinone, Methylothiazolinone).

Customer Service Centre

Tel.: (+49) 0 61 54 / 71 17 10
 Fax: (+49) 0 61 54 / 71 17 11
 e-mail: kundenservicecenter@caparol.de

International Distribution: Please see www.caparol.com