

Cap-elast

Top-class, plasto-elastic coating system for the renovation of cracked render facades and concrete surfaces.



Product Description

Field of Application

For weather-resistant, crack covering coatings on cracked exterior render and concrete surfaces. Also suitable for the protection of substrates against environmental effects and aggressive airborne pollutants.

Material Properties

- Water-dilutable, ecologically compatible, low odour.
- Weather-resistant.
- CO₂ protection: sd CO₂ > 50 m
- Plasto-elastic, crack bridging, excellent opacity (hiding/covering power).
- Substrate-leveling.
- Alkali-resistant, hence unsaponifiable.
- **Cap-elast Phase 1:** Fibre-reinforced, plasto-elastic compound for applying pigmented intermediate coatings and suitable for embedding of reinforcement fabric.
- **Cap-elast Phase 2:** Silk-matt, white, plasto-elastic finishing coat.
- **Cap-elast Phase 2-W:** Plasto-elastic finishing coat. The paint is provided with a preservative against deterioration in the coating film due to algal and fungal attack.
- **Cap-elast Riss-Spachtel:** Plasto-elastic filler for filling cracks in render and brickwork.
- **Cap-elast Faserpaste:** Fibre-reinforced, plasto-elastic surfacer for leveling uneven substrates before applying subsequent Cap-elast coatings.

Material Base / Vehicle

Synthetic resin dispersion/emulsion according to German standard DIN 55945.

Packaging/Package Size

- **Standard Products**
 - Cap-elast Phase 1: 12.5 l
 - Cap-elast Phase 2: 12.5 l
 - Cap-elast Phase 2-W: 12.5 l
 - Cap-elast Riss-Spachtel: 1 kg, 1.5 kg and 10 kg
 - Cap-elast Faserpaste: 5 kg
- **ColorExpress:** Cap-elast Phase 2: 12.5 l



Colours

■ **Cap-elast Phase 1:**

White.

Can be tinted to a max. of 10 % with CaparolColor or AmphiColor® (AVA) colourants. In order to obtain a uniform appearance of surfaces, Cap-elast Phase 1 must be tinted to match the finishing coat in shade (approximately). Tintable via the ColorExpress tinting & mixing machine system in colour shades of all current colour collections to luminosity/lightness index (LI) approx. 70.

■ **Cap-elast Phase 2 and Phase 2-W:** White.

Can be tinted to a max. of 10 % with CaparolColor or AmphiColor® (AVA) colourants. If more than one bucket/container is manually tinted, all product must be thoroughly mixed before use in order to avoid colour differences.

Tintable via the ColorExpress tinting & mixing machine system in colour shades of all current colour collections. Check tinted product before applying to avoid colour deviation. Always use tinted paint of same batch, when applying on seamless surfaces.

Brilliant, intensive colours may have a lower opacity (hiding/covering power). Hence, it is advisable to apply a first coat in a similar hiding pastel tint, based on white. Possibly a second finishing coat may be necessary.

■ **Cap-elast Faserpaste:** White.

Colour Stability as per German BFS-Merkblatt (Data Sheet) No. 26:

Cap-elast Phase 2 and Phase 2-W: Class: A Group: 1 to 3, depending on the colour.

Gloss Level

■ **Cap-elast Phase 2 and Phase 2-W:** Silk-matt, G₂

Storage

Keep in a cool, but frost-free place.

Technical Data

Characteristics according to DIN EN 1062. Tinting may cause variations.

■ Maximum particle (grit) size:

Cap-elast Phase 2 and Phase 2-W: < 100 µm, S₁

■ Density:

- **Cap-elast Phase 1:** Approx. 1.2 g/cm³
- **Cap-elast Phase 2:** Approx. 1.3 g/cm³
- **Cap-elast Phase 2-W:** Approx. 1.3 g/cm³
- **Cap-elast Riss-Spachtel:** Approx. 1.75 g/cm³
- **Cap-elast Faserpaste:** Approx. 1.1 g/cm³

■ Dry film thickness:

Cap-elast Phase 2 and Phase 2-W: 100 - 200 µm, E₃

■ Diffusion-equivalent air layer thickness s_d H₂O:

Cap-elast Phase 2 and Phase 2-W: ≥ 0.14 - < 1.4 m (medium), V₂

■ Diffusion-equivalent air layer thickness s_d CO₂:

Cap-elast Phase 2 and Phase 2-W: > 50 m, C₁

■ Water permeability (w-value):

Cap-elast Phase 2 and Phase 2-W: ≤ 0.1 [kg/(m² · h^{0.5})] (low), W₃

■ Crack bridging classes:

See crack types and relating treatment descriptions in the following chapter. Tinting may cause variations in the technical characteristics.

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




Cap-elast Faserpaste, Phase 1, Phase 2 and Phase 2-W

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

Cap-elast Riß-Spachtel

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

Application

Different Types of Cracks and their Appropriate Treatment with Cap-elast		
<p>Fine Cracks on the Surface of Renders/Plasters or Concrete (Dry and Shrinkage Cracks): <i>Simple Bridging Treatment</i></p>	<p>Fine Cracks in Render/ Plaster or Concrete: <i>Light Bridging Treatment</i></p>	<p>Cracks in the Vicinity of Vertical and Horizontal Joints (Butt Joints) and on the Surface of Lightweight Concrete: <i>Heavy Bridging Treatment</i></p>
		
<p>Surface Coating System: Priming coat with Dupa-grund or CapaGrund Universal according to substrate requirements.* Intermediate coat with Cap-elast Phase 2 or Cap-elast Phase 2-W. Minimum consumption: 230 ml/m². Finishing coat with Cap-elast Phase 2 or Cap-elast Phase 2-W, undiluted. Minimum consumption: 230 ml/m². Crack bridging according to DIN EN 1062 Class A1 (>100 µm) at 23 °C.</p>	<p>Surface Coating System: Priming coat with Dupa-grund or CapaGrund Universal according to substrate requirements.* Intermediate coat with Cap-elast Phase 1, undiluted, tinted to match the finishing coat in shade (approximately). Minimum consumption: 500 ml/m². Finishing coat with Cap-elast Phase 2 or Cap-elast Phase 2-W, undiluted. Minimum consumption: 230 ml/m². Crack bridging according to DIN EN 1062 Class A4 (>1250 µm) at 23 °C.</p>	<p>Surface Coating System: Priming coat with Dupa-grund or CapaGrund Universal according to substrate requirements.* First intermediate coat with Cap-elast Phase 1, undiluted. Minimum consumption: 500 ml/m². Second intermediate coat with Cap-elast Phase 1, undiluted, tinted to match the finishing coat in shade (approximately). Minimum consumption: 500 ml/m². Finishing coat with Cap-elast Phase 2 or Cap-elast Phase 2-W, undiluted. Minimum consumption: 230 ml/m². Crack bridging according to DIN EN 1062 Class A4 (>1250 µm) at 23 °C.</p>

Different Types of Cracks and their Appropriate Treatment with Cap-elastic

Single Structural Cracks:

On Smooth Surfaces:

Bridging Treatment Reinforced with Stripes of Polyester Fabric



Extensive Structural Cracks:

On Smooth Surfaces:

Bridging Treatment Reinforced with Polyester Fabric



Pre-Treatment: Widen the structural crack approx. 1 cm wide and 1 cm deep (U-shaped) and remove dust. Prime liberally with Dupa-grund to the saturation point.

Fill the crack with Cap-elastic Riss-Spachtel, flush with the surface, then texture to match the aspect of surrounding surface and allow crack filler to dry thoroughly.

Surface Coating System: Prime the full surface with Dupa-grund or CapaGrund Universal, according to substrate requirements.*

Reinforcement with Stripes of Fabric on Smooth Surfaces:

Apply Cap-elastic Phase 1 liberally on the filled crack, min. 30 cm wide. Embed suitable elastic fabric (Elastik-Gewebe 10/10, e.g. supplied by Kobau), avoiding creases, into the still wet paint, min. 20 cm wide.

Allow to dry, then apply one **intermediate coat** of Cap-elastic Phase 1 to the full surface, tinted to match the finishing coat in shade (approximately).

Minimum consumption: 500 ml/m².

Finishing coat: Apply undiluted

Cap-elastic Phase 2 or Cap-elastic Phase 2-W on the full surface.

Minimum consumption: 230 ml/m².

Crack bridging according to DIN EN 1062 Class A4 (>1250 µm) at 23 °C.

Pre-Treatment: Widen structural cracks approx. 1 cm wide and 1 cm deep (U-shaped) and remove dust. Prime liberally with Dupa-grund to the saturation point.

Fill all cracks with Cap-elastic Riss-Spachtel, flush with the surface, then texture to match the aspect of surrounding surface and allow crack filler to dry thoroughly.

Reinforcement with Polyester Fabric on Smooth Surfaces: Prime with Dupa-grund or CapaGrund Universal, according to substrate requirements.*

Embedding of Polyester Fabric: Apply Cap-elastic Phase 1, diluted approx. 5 % with tap (potable) water, in the width of one elastic fabric length. Apply the paint evenly with paint brush or roller.

Minimum consumption: 400 ml/m². Press the elastic fabric (Elastik-Gewebe 10/10, e.g. supplied by Kobau) into the still wet coat of Cap-elastic Phase 1, using stainless steel trowel or rigid foam (Moltopren) roller, working from top to bottom and taking care to prevent blistering and creases. Let fabric borders overlap by approx. 5 cm. Allow the reinforced area to dry thoroughly.

Intermediate coat: Apply Cap-elastic Phase 1, diluted approx. 5 % with tap water and tinted to match the finishing coat in shade (approximately).

Minimum consumption: 350 ml/m².

Finishing coat: with Cap-elastic Phase 2 or Cap-elastic Phase 2-W, undiluted.

Minimum consumption: 230 ml/m².

Crack bridging according to DIN EN 1062 Class A5 (>2500 µm) at 23 °C.

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	<p>Exterior Renders: Mortar Group/Class PII (Lime-Cement Mortars), PIII (Cement Mortars) / Minimum Compressive Strength according to DIN EN 998-1: 2 N/mm²: New renders must be left untreated for a sufficiently long holding 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 a correspondingly longer holding time must be respected. The risk of calcareous efflorescence can be reduced by an additional priming coat of CapaGrund Universal and the alkaline finishing render can be coated after a holding time of 7 days. Existing renders: Repairs must have adequate time to cure and dry. Clean with a high-pressure cleaner (water jet), in compliance with the regulations. Prime with Dupa-grund.</p> <p>Concrete: Concrete surfaces with dirt deposits or fines/sintered layer must be cleaned mechanically or with high-pressure cleaner, in compliance with the regulations. Apply one priming coat of CapaGrund Universal on slightly absorbent or smooth surfaces. Prime chalking, sanding or absorbent surfaces with Dupa-grund.</p> <p>Sound/Stable Coatings of Enamel or Emulsion Paint: Roughen glossy surfaces and enamel coatings. Clean chalking coats of emulsion paint by high-pressure cleaner, in compliance with the regulations. Apply one priming coat of CapaGrund Universal. Prime with Dupa-grund, if the surface is cleaned by other methods.</p> <p>Sound/Stable Existing Plasto-Elastic Emulsion Paint Coatings: Clean the surface either with a high-pressure cleaner in compliance with the regulations or by washing with clean water and common wetting agent and then hose down. Apply one priming coat of CapaGrund Universal. Use Cap-elast Phase 2 (silk-matt) or PermaSilan (matt) for intermediate and finishing coat.</p> <p>Sound/Stable Synthetic Resin-Bound (Organic) Renders - Excluding External Thermal Insulation Composite Systems (ETICS/EWI): Clean existing renders by suitable means. Allow wet cleaned surfaces to dry thoroughly before further treatment. Apply one priming coat of CapaGrund Universal.</p> <p>Unstable Coatings of Enamel, Emulsion Paint or Synthetic (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. Allow the surface to dry thoroughly. Prime slightly absorbent or smooth surfaces with CapaGrund Universal. Prime chalking, sanding, absorbent surfaces with Dupa-grund.</p> <p>Unstable Mineral Coatings: Remove the coating completely by sanding off, brushing off, scraping off, using high-pressure water jet in compliance with the regulations, or by other suitable means. Allow wet cleaned surfaces to dry thoroughly before further treatment. Prime with Dupa-grund.</p> <p>Surfaces Stained by Factory Fumes or Soot: Clean by suitable means, e.g. with high-pressure water jet, in compliance with the regulations, and allow the substrate to dry thoroughly.</p> <p>Surfaces with Fungal & Algal Attack: Remove fungal (fungi/mildew/mould) or algal attack by wet-blasting in compliance with the regulations, then use Capatox or FungiGrund and allow to dry thoroughly. It is advisable to apply one finishing coat of Cap-elast Phase 2-W in order to prevent a new algal or mould infestation.</p> <p>Facing Brickwork with Joint Cracks: Open defective, cracked joints approx. 10 mm deep, prime with Dupa-grund, and allow to dry thoroughly. Fill with Cap-elast Riss-Spachtel and allow to dry thoroughly. If brownish discolouration appears on the intermediate coat, apply the anhydrous, solvent-based facade paint Duparol for finishing coat.</p> <p>Surfaces with Salty Efflorescence: Remove salty efflorescence thoroughly by dry wire brushing 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.</p>
Method of Application	<p>Cap-elast Phase 2-W: Apply with paint brush or roller.</p> <p>Cap-elast Phase 1 and Cap-elast Phase 2: Apply with paint brush, roller or spraying equipment.</p> <p>Airless Application: Cap-elast Phase 1: Spray angle: 50°; Nozzle size: 0.029" – 0.035"; Spray pressure: 50 bar Cap-elast Phase 2: Spray angle: 50°; Nozzle size: 0.025" – 0.031"; Spray pressure: 150 bar</p> <p>Cap-elast Faserpaste: Apply with stainless steel smoothing trowel. Apply undiluted and stir up before use.</p>

Consumption	<p>Cap-elast Phase 1: Minimum 500 ml/m² per coat.</p> <p>Cap-elast Phase 2 / Phase 2-W: Minimum 230 ml/m² per coat.</p> <p>Capamix Cap-elast: Minimum 300 g/m² per coat.</p> <p>Cap-elast Faserpaste: Minimum 1.1 kg/m² per mm of layer (coating) thickness.</p>
Application Conditions	<p>Low Temperature Limit for Application and Drying: + 8 °C for product, substrate and ambient air.</p>
Drying/Drying Time	<p>Cap-elast Phase 1: At +20 °C and 65 % relative humidity surface dry and recoatable after 24 hours.</p> <p>Cap-elast Phase 2 / Phase 2-W: At +20 °C and 65 % relative humidity rainproof after 24 hours. Lower temperatures and higher humidity extend the drying time.</p> <p>Cap-elast Faserpaste: Depending on atmospheric humidity, temperature and layer thickness. Approx. 24 hours per mm layer thickness at +20 °C and 65 % relative humidity.</p>
Note	<p>As usual for facade paints, Cap-elast system products must not be applied in direct sunlight or on sun heated surfaces, during strong wind, fog or rain, high relative humidity, imminent rain or impending night frost. Apply wet-on-wet and without interruption to avoid lapping. Stir and sieve the paint thoroughly before airless spray application. Do not apply on horizontal surfaces exposed to rain or moisture. Do not apply on calcareous (high lime) substrates and lightweight renders/plasters. Mechanical loads/scratching on matt or silk-matt facade paints in dark shades may produce bright-toned scuff marks as a product specific property (no writing resistance).</p> <p>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. These 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 paint is applied under suitable climatic conditions.</p> <p>Touching up surfaces is depending on many parameters and may be visible after drying. Germany: See BFS-Merkblatt (Data Sheet) No. 25.</p> <p>Static (structural/constructional) cracks may be subject to extreme movements. Therefore a durable and invisible crack bridging treatment by paint products is impossible. Traction and shear stress in masonry can be absorbed, when using the DESOI Spiral Anchor System. The spiral anchor works like a highly winded spring in linear zones. Detailed information: Desoi GmbH, Fax: (+49) 06655/96366666</p> <p>Joints in the vicinity of windows, doors and window sills must be sealed in a technically correct manner with permanently elastic sealing compound. Facades in special climatic conditions (high degree of moisture) or subjected to a higher influence of atmospheric exposure: The use of our special product Cap-elast Phase 2-W is advisable. Cap-elast Phase 2-W is provided with a preservative against deterioration in the coating film due to algal and fungal attack and offers a long-lasting protection, but the algicidal & fungicidal effect is limited by the special facade conditions, e.g. intensity of attack and moisture loads. Thus, a durable protection cannot be guaranteed.</p>

Advice

German Certificates

- Cap-elast Phase 1 und 2 Determination of water vapour diffusion and the water permeability with primer coating Dupa-grund
- Cap-elast Phase 1 und 2 Determination of water vapour diffusion and the water permeability with primer coating CapaGrund
- Cap-elast Phase 2 Determination of water vapour diffusion and the water permeability with primer coating Dupa-grund
- Cap-elast Phase 2 Determination of water vapour diffusion and the water permeability with primer coating CapaGrund
- Cap-elast Phase 2 Determination of carbon dioxide diffusion current density
- Cap-elast 2 Determination of water vapour and CO₂ permeability

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

Special Risks and Safety Advice (only relevant for Cap-elast Phase 2-W and Cap-elast Riss-Spachtel):

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. Use P2 dust filter for grinding.

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).

According to European Regulation 528/2012 this product is defined as a "treated article" (not a biocidal product) and contains the following biocidal substances: Terbutryn (CAS-No. 886-50-0), Zinc pyrithione (CAS-No. 13463-41-7), 2-Octyl-2H-isothiazol-3-one (CAS-No. 26530-20-1).

(Relevant for Cap-elast Phase 1, Cap-elast Phase 2 and Cap-elast Faserpaste):

Keep out of reach from children. 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. Do not breathe spray dust.

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).

Further information: See Material Safety Data Sheets (MSDS).

Please Note (Status as at Date of Publication)

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

Cap-elast Phase 2: (Cat. A/c): 40 g/l (2010). This product contains max. 40 g/l VOC.

Cap-elast Phase 2-W: (Cat. A/c): 40 g/l (2010). This product contains max. 40 g/l VOC.

Cap-elast Phase 1: (Cat. A/c): 40 g/l (2010). This product contains max. 30 g/l VOC.

Product Code Paints and Enamels

(German product codes)

Cap-elast Phase 1: M-DF02

Cap-elast Phase 2: M-DF02

Cap-elast Phase 2-W: M-DF02F

Cap-elast Riss-Spachtel: M-DF02F

Cap-elast Faserpaste: M-DF02

Substances of Content - Declaration

Cap-elast Phase 1: Polyvinyl acetate resin dispersion/emulsion, titanium dioxide, calcium carbonate, silicates, water, film forming agent, additives, preservatives (methylisothiazolinone, benzisothiazolinone).

Cap-elast Phase 2: Polyvinyl acetate resin dispersion/emulsion, titanium dioxide, silicates, calcium carbonate, water, film forming agent, additives, preservatives (methylisothiazolinone, benzisothiazolinone).

Cap-elast Phase 2-W: Polyvinyl acetate resin dispersion/emulsion, titanium dioxide, silicates, calcium carbonate, water, film forming agent, additives, preservatives (methylisothiazolinone, benzisothiazolinone), film preservative (octylisothiazolinone, zinc pyrithione, terbutryn).

Cap-elast Riss-Spachtel: Acrylic resin dispersion/emulsion, silicates, calcium carbonate, water, additives, preservatives (methylisothiazolinone, benzisothiazolinone), film preservative (octylisothiazolinone, zinc pyrithione, terbutryn).

Cap-elast Faserpaste: Polyvinyl acetate resin dispersion/emulsion, titanium dioxide, silicates, calcium carbonate, synthetic fibres, water, film forming agent, additives, preservatives (methylisothiazolinone, benzisothiazolinone).

Further Details

For more details see container labels and Material safety data sheets (MSDS).

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.160 · Cap-elast · Issued: May 2016

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