

Mineral dry spray mortar (SPCC), coating thickness 6-50 mm

<b>Characteristics</b>					
<b>Function</b>		<ul style="list-style-type: none"> <li>- Single component mineral dry spray mortar with low rebound</li> <li>- Non-combustible (class A1) in accordance with the European fire protection building standard DIN EN 13501-1</li> <li>- Appropriate to recreate a fire resistance of structural components which become a repair</li> <li>- Tested in accordance with the DIN-unit temperature-time curve and the hydrocarbon curve for a fire duration of 90 mins.</li> </ul>			
<b>Application</b>		<ul style="list-style-type: none"> <li>- Applied by machine with the dry spray method</li> <li>- Delivery with LaMaCo...mix and LaMaCo Truck (not in every country available !)</li> </ul>			
<b>Areas Of Use</b>					
<b>Uses</b>		<p>For exterior and interior use          For concrete and reinforced concrete          The product is a component of the LaMaCo System corresponding to the DAFStb Guidelines for repair mortars and concrete 2001-10: Class M2 / SPCC and Class M3 / SPCC.</p>			
<b>Technical Data</b>					
<b>Product group</b>		<p>Spray mortar.          Synthetically modified, hydraulically hardening, single component factory dry mortar on cement base with 2 mm maximum grain size</p>			
<b>Composition</b>					
<b>Data</b>		<b>Criterion</b>	<b>Norm / Test prescript</b>	<b>Value</b>	<b>Units</b>
		Density of fresh mortar	DIN EN 1015-6	2.10	kg/dm <sup>3</sup> <sup>(1)</sup>
		Maximum grain size		2.0	Mm
		Tear-off strength (after 28 days)	EN 1542	> 2,0	N/mm <sup>2</sup> <sup>(2)</sup>
		Compressional strength (after 28 days)	EN 12190	55 - 75	N/mm <sup>2</sup> <sup>(2)</sup>
		Flexural strength (after 28 days)	TP BE PCC	9 - 12	N/mm <sup>2</sup>
		Static E-modulus (after 28 days)	EN 13412	24000	N/mm <sup>2</sup> <sup>(2)</sup>
		<p>(1 g/cm<sup>3</sup> = kg/dm<sup>3</sup> = kg/l                  (2 N/mm<sup>2</sup> = MPa</p> <p>The values stated are average values. Due to the use of natural raw materials in our products, the actual value determined on an individual delivery may deviate slightly, without compromising product suitability.</p>			
<b>Certificates / Norms / Approvals</b>		<p>Report P-56.3-9904      SPCC Concrete Repair System <b>Cem Crete DSM 100</b>                  General approval for use as a construction material</p> <p>Report P-56.3-9904      SPCC Concrete Repair System <b>Cem Crete DSM 100</b>                  General approval for use as a construction material</p>			

<b>Application</b>	
<b>Substrate</b>	<p>Requirements on the substrate:</p> <ul style="list-style-type: none"> <li>The concrete substrate must be load bearing and free of homogeneous or foreign substances with a separating effect as well as free of corrosion promoting components (e.g. chlorides).</li> <li>Less firm layers and mud accumulation are to be removed.</li> <li>Damp in accordance with the definition of the DAfStb Renovation Guidelines 2001-10.</li> </ul> <p>The degree of cleanliness of the exposed reinforcement steel after substrate preparation: Sa 2 ½ - clean metal in accordance with DIN EN ISO 12 944-4 (replacement for DIN 55 928 Part 4) or DIN EN ISO 8501-1.</p> <p>Adhesive strength: on average 1.5 N/mm<sup>2</sup> Adhesive strength lowest individual value: 1.0 N/mm<sup>2</sup></p> <p>Critical substrates must be tested for suitability (create test surface).</p>
<b>Substrate preparation</b>	<p>The substrate is to be prepared with suitable mechanical measures such as e.g. blasting with solid blasting agents, or high pressure water blasting (&gt; 800 bars). Pores and blowholes must be opened sufficiently. The edges of damaged areas should be angled off below approx. 45°.</p>


<b>Application temperature</b>	<p>Minimum application and substrate temperature + 5 °C</p> <p>Maximum application temperature + 30 °C</p>						
<b>Coating procedure</b>	<ol style="list-style-type: none"> <li>Substrate preparation</li> <li>Corrosion protection with <b>Epo Bond SMI</b> at exposed reinforcement bars. Please note: <b>Epo Bond SMI</b> in 3 application steps</li> <li>Concrete replacement with <b>Cem Crete DSM 100</b> Layer thickness 6-50 mm Thicker coatings must be applied with several coats.</li> </ol>						
<b>Material preparation</b>	With approved dry spray machine						
<b>Mixing procedure</b>	The mixing process takes place in the spray nozzle						
<b>Consumption</b>	<table border="1"> <thead> <tr> <th style="background-color: #f2f2f2;">Article</th> <th style="background-color: #f2f2f2;">Type of application</th> <th style="background-color: #f2f2f2;">Consumption approx.</th> </tr> </thead> <tbody> <tr> <td>00793</td> <td>Material per cm damage depth / coating thickness (without rebound)</td> <td>20.0 kg/m<sup>2</sup></td> </tr> </tbody> </table> <p>Precise consumption figures should be determined on the object.</p>	Article	Type of application	Consumption approx.	00793	Material per cm damage depth / coating thickness (without rebound)	20.0 kg/m <sup>2</sup>
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<b>Application</b>	<ol style="list-style-type: none"> <li><u>Substrate preparation</u> <p>The substrate is to be prepared with suitable mechanical measures. De-rust the exposed reinforcement steel in accordance with DIN EN ISO 12 944-4 to standard grade of cleanliness Sa 2 ½ respectively Sa 2. The de-rusted reinforcement steel must be free of dust and grease.</p> <p>Standard grade of cleanliness of exposed reinforcement after substrate preparation depends on planned principle of repair: Sa 2 acc. DIN EN ISO 8501-1 at repair principle R (re-alkalinisation with mortar) Sa 2 ½ acc. DIN EN ISO 8501-1 at repair principle C (reinforcement coating)</p> </li> <li><u>Corrosion protection</u> <p>Immediately after de-rusting the exposed reinforcement steel in accordance with DIN EN ISO 8501-1, the coating with <b>Epo Bond SMI</b> takes place in three applications: 1<sup>st</sup> coat, 2<sup>nd</sup> coat and 3<sup>rd</sup> coat</p> </li> </ol>
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<p><b>Application (cont.)</b></p>	<p>Coat the reinforcement steels with a fine paint brush evenly and without gaps.          Waiting time between each application approx. 4,5 hours.          The corrosion protection on the reinforcement steel must be cured as far as a peeling at subsequent coatings is excluded.          Reinforcement steel <b>Ø up to 18 mm:</b>          1<sup>st</sup> application: <b>Epo Bond SMI</b>          Consumption approx. 130 g/m per single application          2<sup>nd</sup> application: <b>Epo Bond SMI</b>          Consumption approx. 140 g/m per single application          3<sup>rd</sup> application: <b>Epo Bond SMI</b>          Consumption approx. 130 g/m per single application  <b>or</b>          Reinforcement steel <b>Ø over 18 mm:</b>          1<sup>st</sup> application: <b>Epo Bond SMI</b>          Consumption approx. 150 g/m per single application          2<sup>nd</sup> application: <b>Epo Bond SMI</b>          Consumption approx. 160 g/m per single application          3<sup>rd</sup> application: <b>Epo Bond SMI</b>          Consumption approx. 150 g/m per single application          The concrete substrate must be sufficiently prewetted before application of <b>Cem Crete DSM 100</b> (for the first time approx. 24 hours before spray application). At the moment of spray application however it must be dry or may appear a matt damp surface.</p> <p>3. <u>Reprofiling with LaMaCo Technology :</u></p> <ul style="list-style-type: none"> <li>• General</li> </ul> <p>Transfer of the dry mortar to dry spray machine via transfer hood.          Transfer hoods available for:</p> <ul style="list-style-type: none"> <li>- Mader Dry Spray Machine WM 05,</li> <li>- Mader Dry Spray Machine WM 14,</li> <li>- Aliva.</li> <li>- MBT Piccola 020 E</li> </ul> <p>Control of material flow and material quantity between silo and dry spray device using filling status probe.</p> <p>When using pre-wetting:          Mixing well for pre-wetting <b>Cem Crete DSM 100</b> and through-flow meter for control of water quantity.</p> <ul style="list-style-type: none"> <li>• Spray procedure</li> </ul> <p>The transport of the dry mortar takes place with a dry spray machine with rotor or transport chamber and pocket wheel.          For spraying, water is added at the spray nozzle. As compressor, a machine with min. 7 m<sup>3</sup>/min. air output at 3 bars is required.          Spraying should be carried out using a tested nozzle guide, which through nozzle distance, spray orientation, mortar and water quantity significantly influences the quality / rebound of the sprayed mortar.</p> <p>Typical nozzle distance: 0,5 - 1,0 m.</p>
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<p><b>Application (cont.)</b></p>	<p>4. <u>Surface treatment</u>          With surface works on the SPCC, two sprayings are necessary, in order to avoid bond disruptions with the substrate. When spraying the 2<sup>nd</sup> coat, the surface of the 1<sup>st</sup> coat must still be matt-damp.</p> <p>Adhesive bond disrupting soiling such as e.g. dust is to be removed through suitable measures (e.g. with oil-free compressed air).</p> <p>In particular for the spray works in interiors and in case of risk of soiling of the remaining concrete surfaces in outside areas, which are later to be given a technical spray coating, these surfaces must be covered e.g. with sheeting fixed on tracks.</p> <p>It must be ensured that adhesive bond disrupting soiling through rebound or spray mist does not adhere to surfaces to be coated and that any such soiling is removed through suitable measures such as e.g. sand blasting.</p> <p>The surface of the 2<sup>nd</sup> coat must be drawn off over tracks. Care should be taken that joint disruptions and separations from the substrate are avoided.</p> <p>If tracks are anchored in the application surfaces to keep coating thickness, these should be removed after conclusion of the spray works. Remaining parts must end a minimum of 5 cm under the spray concrete surface. The holes and reveals produced should if possible be sealed fresh in fresh with the same spray concrete.</p> <p>Any working joints that occur should be treated in accordance with DIN 1045, para. 10.2.3 (edition July 1988) as necessary with sand blasting, oil free compressed air blasting off of soiling, and pre-wetting, so that a homogenous mortar layer is produced after conclusion of the spray application.</p> <p>In general, if not required otherwise, the surface should be left with a rough spray finish (see DIN 18 551). Rebound should be disposed of!</p> <p>After a specified hardening time (dependent on temperature, air humidity, application thickness and substrate), the surface can be drawn off over tracks. Joint disruptions and separations from the substrate must be avoided.</p> <p>Spray down any defect areas. Do not use rebound material for reprofiling works.</p> <p>If a felted surface is required, <b>Cem Crete DSM 100</b> can be over coated with <b>Cem Crete WSM 200</b> either manually or in the wet spray method.</p> <p>Clean surface with high pressure cleaner (to remove fine spray dust).</p>
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<b>Storage</b>	Store in dry conditions
<b>Storage conditions</b>	In unopened original sacks, product can be stored for 9 months; in large containers also for 9 months. (Relevant data: refer to packaging).
<b>Storage life</b>	
<b>Environment</b>	This product is low in chromates according to TRGS 613. We guarantee these characteristics until expiry of the max. storage life.
<b>Disposal</b>	
<b>Special notes</b>	Waste has to be disposed considering the local, official regulations.  Waste key in accordance with the European Waste Catalogue: 17 09 03.
<b>Marking</b>	
<b>Safety</b>	 Xi – irritant This product requires marking according to the current EU guidelines. For further information on handling, storage and disposal of the product, refer to the EU Material Safety Data Sheet, available for the professional user. You will receive an EU Material Safety Data Sheet with your first order. Please observe the information on handling, storage and disposal of the product.
<b>GISBAU-code</b>	
<b>CE-Marking</b>	ZP01
<b>Revision No.</b>	CE Marking acc. EN 1504-3 <b>Cem Crete DSM 100</b>
<b>Validity</b>	EC Declaration of conformity acc. EN 1504-3 <b>Cem Crete DSM 100</b> <b>Cem Crete DSM 100/INT/EN/027</b> 10.09.2009 Previous product information is no longer valid. Please ensure before use that this is the latest version of the document.
	The information and data serve to ensure the normal application purpose and normal application suitability.
	Uses not specifically discussed in this Technical Data Sheet may only take place after consultation with LaMaCo Malaysia



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