

# HM 50 Bonding mortar

Technical Data Sheet Last Update Sept 2004

Product	Factory prepared dry powder mortar in accordance with DIN 18557 and DIN EN 998-1, mineral render and facade and concrete thin coat finish render and bonding mortar, for manual and machine application.	
Suitable Uses	Generally as a bonding mortar onto concrete surfaces for the application of further basecoats and/or finishes of the Mortar Groups CS I, CS II, CS III und CS IV (up to 10 mm). For application over stable, mineral renders of the Mortar Groups CS III und CS IV, concrete, resin based renders and stable paints.	
Composition	Sand, cement, white lime and additives to improve workability, adhesion and reinforcement (textile fibres)	
Performance	<p>Mineral based workable bonding mortar and concrete filler/skim finish and reinforcing mortar. A renovation and facade thin coat render and filler with good adhesion onto most backgrounds. Once hardened, it is water vapour permeable, frost resistant, weather resistant and has high impact resistance.</p> <p>For use in all external and internal areas including the plinth area with the provision of a gravel drainage. Ideal background for mineral and resin decor render finishes. HM 50 can also be used as a reinforcing mesh (alkaline resistant) coating onto basecoats and insulation boards, for example Styrodur (rough, scratched surface) and multi-layered boards. Not for use with certificated ETICS.</p>	
Technical Data	Mortar group:	CS IV acc.to DIN EN 998-1 (P II acc.to DIN 18550)
	Grain size:	0 – 1,2 mm
	Compression strength:	$\geq 6 \text{ N/mm}^2$ ( $> 6 \text{ N/mm}^2$ )
	Conductivity value (Tabled values acc. EN 1745)	$\leq 0,93 \text{ W/mK}$ (for P = 90 %)
	Conductivity value (Tabled values acc.to DIN V 4108)	$\leq 0,83 \text{ W/mK}$ (for P = 50 %)
	$\mu$ -value:	1,0 W/(mK)
	Water requirement::	10 - 20
	Yield:	4,5 – 5,5 l/sack = 180 – 220 l/t
	Coverage:	approx. ca. 21 l/sack = ca. 840 l/t
		ca. 5 - 6 kg/m <sup>2</sup> (minimum layer thickness 3 mm)
Packaging	Paper sacks, sack content 25 kg, (42 sacks per pallet = 1050 kg)	
Storage	Dry and protected, do not store for longer than 6 months.	
Quality Assurance	The product undergoes in-house monitoring, using a quality management system which conforms to the current international standard DIN EN ISO 9001 and the environmental standard ISO 14001, certified by TUV.	
Health and Safety	Hazard label:	Xi irritant
	R-phrases:	R 36/38 Irritates the eyes and skin R 41 Risk of serious eye damage R 43 Contact with skin can cause sensitisation
	S-phrases:	S 2 Keep away from children S 24/25 Avoid contact with skin and eyes S 26 In case of eye contact, rinse with plenty of water and seek medical assistance S 37/39 Wear suitable protective clothing and safety goggles
	Low Chromate content according to TRGS 613	

Background	<p>Suitable onto mineral backgrounds such as concrete, masonry and lime and cement bound basecoats. The background should be dry, stable, dirt and dust free, and able to receive a coating. Basecoats should be fully cured. Remove any peeling paint, lime wash, grease stains (from shuttering) and other contaminants and film forming layers. Any cracks are to be scratched open with a pointed tool to form a "V" shape. Highly absorbent backgrounds are to be dampened with water. Do not apply onto gypsum backgrounds. Smooth backgrounds (styrodur or similar) should be roughened up prior to application of HM 50. Friable basecoats are to be treated with a stabiliser such as PF05. Larger areas of insulation boards should be mechanically fixed according to the manufacturers recommendations.</p>
Application	<p>Use only clean water, without admixtures. Do not mix with other materials. HM 50 can be manually mixed in a bucket or tub, depending on quantity, using an electric hand mixer. Mortar mixing pumps or continuous mixers provide a more efficient mixing and application of the bonding mortar. Mortar mixing pumps in conjunction with semi performance or full performance rotor and stator. The application thickness and process varies depending on purpose.</p> <p>As a bonding mortar, facade renovation render and reinforcing mesh coating, HM 50 is generally applied to a thickness of 3-5 mm and combed through with a brush while wet. Glass fibre reinforcing mesh (AG01 G) is embedded into the mortar in areas where there is a risk of cracking (mixed masonry, over cracks). Standing times of 1 day per mm thickness of render should be observed before further Coatings are applied.</p> <p>Bonding Mortar HM 50 can be applied directly onto concrete and sponged finished.</p> <p>As a bonding mortar for insulation boards over areas subject to thermal bridging, HM 50 can be applied at medium thickness and combed through with a tooth trowel. HM 50 can be applied as a bonding mortar onto concrete, with an immediate „fresh-in-fresh“ application of a further coating. Do not apply to thicknesses &gt; 8-10 mm over larger areas. BaumitBayosan ETICS are available for larger areas of facade insulation.</p>
Hints	<p>Do not apply in direct sunlight, rain or wind and protect the finished work until fully cured (Scaffold nets).</p> <p>High humidity and low temperatures can increase curing times considerably.</p> <p>Observe the minimum standing time of 1 mm render thickness per day before applying further coatings and finishes.</p> <p>Ensure that with any reinforcing mesh coatings, the mesh is not damaged or exposed.</p> <p>By double meshing, ensure that the second meshing coat is applied after at least one day.</p> <p>Clean tools after use with water.</p> <p>If bonding coat HM 50 is used as a finish render, Ensure that a waterproof paint is subsequently applied.</p> <p>Protect other materials such as glass, ceramics or metal etc from contamination with appropriate coverings.</p> <p>Do not apply or allow to dry under an air or wall temperature of + 5 °C and falling or more than + 30 °C. Observe the guidelines stated in DIN EN 998-1, DIN 18550 and DIN 18350 (VOB, Part C).</p>

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Our user recommendations, which we provide in support of the buyer/user on the basis of our experience, correspond to the present state of the art technology and practice. They are not binding and do not constitute any contractual legal relationship or any accessory obligations from the purchase contract. They do not relieve the buyer of the obligation to check our products for himself as to their suitability for the intended application. The general rules of construction engineering must be observed. The right to make changes in the interests of progress and the improvement of the product or its application is reserved. This Technical Information invalidates and supersedes all previous issues. Please refer to our Internet pages for the latest information.