

EMACO[®] S 20 B

Sprayed concrete used for dry spraying on bridges, civil engineering construction and buildings.

Field of application

- For indoor and outdoor application.
- For walls and ceilings.
- EMACO[®] S 20 B: is bag packaged renovation mixture fit for dry spraying technology.
- The material is suitable for renovation of reinforced construction, non-alternating stressed parts of constructions even with non-fixed reinforcement (all into the systems PCCII and PCCIII) and for additional protection of surfaces as bridge abutments, revetment walls etc. It could be used even for stone or brick masonry ei. springing walls, rock massive etc.

Features

- Shot concrete C 25/30 – XC3.
- Material is modified to provide sufficient flexibility of mortar mixture, to achieve voluminous stability of the products and adequate bonding to a properly prepared substrate.
- Material contains fibres as standard.
- For thicknesses to 80 mm in one layer.
- Provide economical application, minimal fallout.
- Abrasion resistant, achieve high strengths.
- Resistant against thawing agents, frost resistant.
- Watertight but permeable for water vapour from substrate. Compliant with EN 12390-8.
- The sprayed concrete has got excellent bonding ability to substrate and the fallout of the mixture due to back bounce is minimized. Irregularities on surface can be immediately smoothed by wood lath rule off. In case of a requirement of architectural concrete the final resurfacing compounds can be used i.e. EMACO[®] R 305, event. EMACO[®] Nanocrete FC.

Substrate preparation

The surface should be prepared mechanically event. high pressure water jets or sand blasting to the sound solid and carrying substrate (adhesive strength approx. 1,5 MPa). The reinforcement should be treated with the same care, prime with protective coat EMACO[®] Nanocrete AP or EMACO[®] Nanocrete BP. The substrate prepared for spraying concrete application should be slightly damp on the surface.



Technical data

Material base	Mixture of cements, fibres and additives, does not contain asbestos. No harmful silica dust during application.	
Consumption	approx 2,1 kg/m ² /mm layer thickness	
Bulk density	approx 1,7 kg/dm ³	
Grain size	max. 4 mm	
Volume density	approx 2,1 kg/dm ³	
Working temperature	+5 °C to +30 °C	
Gauging water per 30 kg mixture	approx 3,5 l (according site conditions)	
Adhesive strength	min 1,5 N/mm ²	
Compressive strength after 28 days	approx 40 N/mm ²	
Transverse tensile strength after 28 days	approx 4,0 N/mm ²	
Max. thickness of sprayed 1 layer	to 80 mm	
Maximum depth of water seepage pressure	compliant with EN 12390-8	
Fallout during spraying-back bounce	approx 15–20 % (according spraying technology)	
Application (spraying equipment)	All machines suitable for dry spraying	

Application

- Dry mixture is filled immediately after the package opening to filling equipment (all machines for dry spraying are suitable, without exception).

- Mixture consistence for spraying obeys specific conditions on site (construction type, nozzle location, layer thickness etc.) and could be set directly on the nozzle. The spraying application should be carried with well trained operator with sufficient working experience.

Treatment

It is recommended to protect sprayed mortar after spraying application approx. 3–5 days according particular condition from rapid drying (to water, to fog, protect from direct sunlight and wind).

Packaging and storage

- Packaging 30 kg PE lined heavy-duty paper bag, delivery on euro-pallets.
- Storage in dry conditions, shelf life min. 6 months from production data.

Please note

- Clean, slightly damp substrate is essential for spraying concrete application. There should not be any substances on substrate that could decrease bonding to the substrate.
- Proper treatment of fresh concrete should be observed after spraying application. Renovated areas must be kept damp for approx. 3–5 days and must be protected against weather conditions, draught and direct sunlight.
- Do not apply at temperatures under +5 °C and above +30 °C.

Safety

- EMACO® S 20 B contains cement and contact with moisture or gauging water sets off an alkaline reaction.
- It may cause skin irritation and/or caustic burns to mucous membranes (e.g. eyes).
- Avoid contact with eyes and prolonged contact with skin.
- In case of contact with eyes and skin immediately rinse with a lot of water .
- In case of contact with eyes seek prompt medical attention!
- Keep out of reach of children.

Information for architects and engineers

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Consultations on the building sites, additional information, tests and samples descriptions are available at particular technicians and the headquarters.

Waste material disposal instruction

Avoid any contamination of watercourses and sewerages. Disposal of waste material and contaminated packaging should respect local law and instruction.

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