



MC-Montan Shot Seal

Highly elastic, self-crosslinking, dry-sprayed waterproofing membrane with IMB technology

Product Properties

- High elasticity and pull off strength
- Permanently waterproof and vapour diffusible
- High alkali, UV and weathering resistance
- Curing-free
- Excellent bonding to concrete and steel components

Areas of Application

- Profile Customizable
- On sprayed or casted concrete of single-shell tunnel construction
- Between two layers of concrete in sandwich construction
- As substitution of conventional waterproofing sheet membranes
- Permanent bonding when bonding to the interfaces, steel or plastic waterproofing membrane

Application

General information

MC-Montan Shot Seal is a highly flexible and self-crosslinking waterproofing membrane with IMB-technology for tunnels. It is applied using the dryspray method. MC-Montan Shot Seal cures fast to form a permanent and highly resistant waterproofing membrane.

The MC-Montan Shot Seal application provides excellent saponification resistance and resistance to permanent water stress thanks to the special intermolecular cross-linking process. An application as a composite system in a sandwich construction or in a single-shell construction is possible with MC-Montan Shot Seal.

Substrate preparation

The substrate must be clean and free from of all loose particles, dust, oil and other contaminants. MC-Montan Shot Seal can be applied on damp surfaces but not directly on standing moisture or running water. Dripping, seeping or flowing water needs to be stopped by temporary measurements (e.g. injection) or drained off by a sufficient drainage system.

Application/ Equipment

MC-Montan Shot Seal is applied by dry-spray

technique either via pressured air or electronically operated machinery. Standard pumps from e.g. Aliva, MEYCO Piccola or Velco Rotamat can be used.

Application/Spray technique

The water consumption at the nozzle has to be adjusted in a way that the membrane can be applied homogenously and dust free.

MC-Montan Shot Seal can be applied in a single layer or multiple layers and is suitable for temperatures from 5 °C to 40 °C and moreover, depending on the environmental conditions

The consumption depends very much on the roughness of the substrate. Does the roughness exceed 16 mm, a levelling mortar with maximum grading of 4 mm should be applied, prior to reduce the consumption of MC-Montan Shot Seal.

Curing

MC-Montan Shot Seal does not need to be cured.

Support

The "MC-Business Unit Tunneling" is available for individual consultation and optimization of the application on site.



Technical properties MC-Montan Shot Seal

Characteristic	Unit	Value*	Comments
Bulk density	kg/dm ³	1.40 - 1.45	
Largest grain	mm	1.5	
Layer thickness**	mm	2 10	Minimum layer thickness per work-step Maximum layer thickneys per work-step
Curing	h d	24 7	Touch dry Fully curedt
Pull-off strength	N/mm ²	1.8 2.5 1.2 1.6	Shotcrete Substrate Steel Stubstrate Immersed in 3% caustic potash solution After frost-thaw stress
Shear strength	N/mm ²	1.4	two layers of concrete in sandwich construction
Shore-A hardness	-	50 85 85	After 24 hours After 7 days After 28 days
Water penetration	mm	0	Water pressure load with 5 bar

Product Characteristics MC-Montan Shot Seal

Form	dry material
Colour	Basic color: "Gray" / other color are possible after arrangement
Storage	In original sealed packaging MC-Montan Shot Seal can be stored, protected from frost and under dry conditions, for at least 12 months.
Factory production control	According to DIN EN ISO 9001
Delivery	20 kg packs

* All values have been determined at + 23 °C and 50 % relative humidity.

Note: The information on this data sheet is based on our experiences and correct to the best of our knowledge. It is, however, not binding. It has to be adjusted to the individual structure, application purpose and especially to local conditions. Our data refers to the accepted engineering rules, which have to be observed during application. This provided we are liable for the correctness of this data within the scope of our terms and conditions of sale-delivery-and-service. Recommendations of our employees which differ from the data contained in our information sheets are only binding if given in written form. The accepted engineering rules must be observed at all times.

Edition 06/18. Some technical changes have been made to this print medium. Older editions are invalid and may not be used anymore. If a technically revised new edition is issued, this edition becomes invalid.