

# MC-Montan Plan 120

Super durable PVC waterproof membrane used for waterproofing tunnels and underground works.

## PRODUCT PROPERTIES:

- Designed with a thin layer of light color above the dark base layer to help detect damage more easily.
- Has the ability to be waterproof and moisture-proof, protecting the structure from rot and aging.
- Highly adaptable to irregularities or deformations of the ground and rock due to high elasticity, weld strength and penetration resistance.
- Very high level of watertightness, and capable of withstanding permanent pressure.
- Non-reactive with bitumen, oils and tar.

## AREAS OF APPLICATION:

- Waterproofing of all types of underground structures exposed to groundwater attack.
- Waterproofing of tunnels of the type of drilled and blasted, NATM,... part or the entire cross-section.
- Waterproofing of basement tanks, stations.
- Waterproofing of passages between two tunnels.
- Not suitable for long-term exposure to ultraviolet radiation.

## APPLICATION NOTES:

- **Substrate preparation:** The substrate on which the membrane is applied shall be smooth, clean, homogeneous and free of irregularities and protrusions. Its geometry shall meet the local standards -or manufacturer's instructions in case of absence. This product can be installed on damp and wet surfaces. This geomembrane can be used on a bituminous support after the insertion of a suitable separation layer.
- **Seaming:** The product can be welded by hot gas welding or hot wedge welding, and solvent welding should be avoided as much as possible. The weldability and quality of the weld performed on site can be affected by environmental conditions (temperature, air humidity, etc.) and also by the surface condition of the waterproofing membrane (cleanliness, humidity, etc.). Therefore, welding parameters must be adjusted to the specific conditions of the project and strict quality control procedures must be implemented.
- **Protection:** An anti-puncturing geotextile or geocomposite shall be placed onto the support of the waterproofing in accordance with the adjacent layers. Special protection means shall be implemented in case of backfilling adjacent to the membrane. Static and dynamic puncture resistance of the protection layers shall be demonstrated.

## TECHNICAL DATA:

Characteristic	Unit	Value	Comments
Thickness	mm.	2 ± 5%	EN 1849-2
Mass per unit area	Kg/m <sup>2</sup> /mm	1.30 ± 5%	EN 1849-2
Tensile strength	MPa	≥ 15	MD & CMD ISO 527-3
Elongation at failure	%	≥ 300	MD & CMD ISO 527-3
Tear strength	kN/m	≥ 40	ISO 34
Tensile strength of the welded seam	N/mm	≥ 6	EN 12316-2
Dimensional stability after accelerated ageing (6h/80°C)	%	≤ 2	EN ISO 1107-2
Puncture resistance (CBR)	kN	≥ 2	EN ISO 12236
Cold folding resistance		No cracks at -20°C	EN 495-5
Resistant under water pressure		Pass	6 bar/72 h EN 1928
Perforation test		No perforation	500g/1200 mm EN 12691

\* All values refer to 23°C and 50% relative humidity.

## PRODUCT CHARACTERISTICS:

<b>Standard color</b>	Light blue-black
<b>Delivery</b>	Standard packaging: delivery in roll form, 2.15 meter width, on cardboard cores. Length of the roll TBC.
<b>Storage</b>	Store in dry unheated space. Rolls to be parallel and in original packing. Do not stack in cross form or under pressure. The storage area must be of such nature as not to damage the geomembrane.
<b>Certificates</b>	Certificates and test reports can be provided upon request.

**Safety advice:** Please note the safety information and advice provided on the packaging label and safety data sheet.

**Note:** The information provided here is based on our experience and correct to the best of our knowledge. It is, however, not binding. It will need to be adapted to the requirements of the individual building projects, to the specific application and to non-standard local conditions. Our data refers to the accepted engineering rules, which have to be observed during application. Given these preconditions we shall be liable for the accuracy of the information given as outlined in our sales and delivery terms and conditions. Recommendations by our employees that deviate from this information are only binding for us if they have been confirmed in writing. In all cases, the generally accepted rules and practices reflecting the current state of the art must be adhered.

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