# MasterShield® WP 720 (4,5 mm)

SBS Modified Bitumen Waterproofing Membranes

## Material Description

**MasterShield® WP 720** are elastomeric waterproofing membranes, manufactured in an advanced continuous calendaring process by saturating and coating a synthetic carrier with a waterproofing compound made of a special grade of bitumen, modified with SBS polymers. While the SBS polymers enhance the thermal, mechanical, and aging properties of the membrane compound, the mechanical characteristics of **MasterShield® WP 720** are established by the non-woven continuous filament spun-bond Polyester which acts as the reinforcement that provides the membrane with its particular tensile strength, tear resistance, puncture resistance and elongation properties. The upper surfaces of **MasterShield® WP 720** is covered with an anti adhesive finish material, whereas the lower surface is laminated with a thermofusible polyethylene film.

## Areas of Application

**MasterShield® WP 720** are multi-purpose membranes for waterproofing applications subjected to different mechanical stresses, movement and significant weathering conditions, can be used as a single layer in specific applications.
**MasterShield® WP 720** membranes are particularly recommended for foundations & underground structures.

## Characteristics and Benefits

- Fully bonded system
- Significant compound elastic behavior
- Enhanced resistance to chemicals
- Excellent mechanical properties
- Enhanced performance under a wide range of temperature fluctuation, (From -15 °C to +125 °C)

## Processing Method

### (A) Product Surfaces

Aplication The lower surface of **MasterShield® WP 720** is laminated with a Polyethylene film while the upper surface is covered with fine sand.

### (B) Processing

**MasterShield® WP 720** usually applied by using a propane torch by mechanical fastening. It can also be applied using special adhesives in cold or hot applications. The substrate surface must be clean, dry, smooth, and free from any irregularities. According to the surface
conditions, a coat of suitable primer maybe required prior to the application of the membrane. **MasterShield® WP 720** can be applied to the substrate loose laid. Side laps should be from 8-10 cm, while end laps should be from 12-15 cm. For more information on application contact to MBT Tech technical service.

## Packaging

| | |
|---|---|
| Thickness | 4,5 mm |
| Standard Roll Size | 1m x 8m |
| Rolls / Pallet | 23 |

## Storage

**MasterShield® WP 720** rolls should be kept in an upright position in a flat, properly ventilated and sheltered storage area.

## Shelf Life

24 months after the production date under appropriate storing conditions.

## Health and Safety

It is dangerous to approach the application sites. During the application, a protective apparel, protective gloves, goggles and masks which comply with the Occupational Health and Safety Rules should be used. Due to the irritation effect of the uncured materials, the mixture should not come into contact with skin and eyes; in case of a contact, the affected area should be washed with plenty of water and soap; in case of swallowing, a physician should be consulted immediately. No food or beverages should be brought to the application area. The product should be stored and kept out of reach of

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children. For detailed information please consult the Material Safety Data Sheet.

## Disclaimer

The technical information given in this publication is based on the present state of our best scientific and practical knowledge. **MBT Teknik Yapı Kimyasalları Sanayi ve Ticaret A.Ş.** is only responsible for the quality of the product **MBT Teknik Yapı Kimyasalları Sanayi ve Ticaret A.Ş.** is not responsible for results that may occur because the product is used other than advised and/or out of instructions regarding the place and the method of use. This technical form is valid only till a new version is implemented and nullifies the old ones.

## Contact

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| Technical Properties | |
|---|---|
| Chemical Base | SBS Modified Bitumen |
| Thickness (EN-1849-1) | 4,5 mm ± 5% |
| Determination Of Width (EN-1848-1) | 1 m ± 1% |
| Determination Of Length (EN-1848-1) | 8 m ± 1% |
| Tensile Strength – Longitudinal (EN-12311-1) | 950 N/50mm ± 20% |
| Tensile Strength – Transverse (EN-12311-1) | 700 N/50mm ± 20% |
| Elongation At Break – Longitudinal (EN-12311-1) | 45% ± 15 |
| Elongation At Break – Transverse (EN-12311-1) | 50% ± 15 |
| Tearing Strength - Longitudinal ( Nail-Shank ) (EN-12310-1) | 225 N ± 30% |
| Tearing Strength - Transverse ( Nail-Shank ) (EN-12310-1) | 225 N ± 30% |
| Tensile Tear Resistance – Longitudinal (ASTM D-5147, D 4073) | 850 N ± 30% |
| Tensile Tear Resistance – Transverse (ASTM D-5147, D 4073) | 600 N ± 30% |
| Resistance to Static Loading (EN 12730 Method A) | Min. 25 Kg |
| Dynamic Puncturing (Impact Resistance) (EN 12691 Method B) | Min. 900 mm |
| Flow Resistance At Elevated Temperature (EN-1110) | Min. 100$^0$C |
| Flexibility At LowTemperature(1) (EN-1109) | -15$^0$C |
| Dimensional Stability (EN-1107-1) | Max. ±0.5 % |
| Water Impermeablility- Watertightness at Low pressure (EN-1928 Method A- 60 Kpa) | Passed |
| Water Impermeablility- Watertightness at High pressure (EN-1928 Method B) | Min. 350 Kpa |
| Water Absorption (ASTM D-5147) | Max. <1 |
| Vapour Permeability (EN 1931) | 20000 $\mu$ |
| Fatigue resistance on cracks (UNI 8202/13) | 200 cycles - passed<br>500 cycles - passed |
| Shear Resistance Of joints - Longitudinal (EN-12317-1) | 950 N/50mm ± 20% |
| Shear Resistance Of joints - Transverse (EN-12317-1) | 700 N/50mm ± 20% |
| Thermal Ageing in air (UNI 8202 /26) (*in oven 28 days at 70° C*) | Passed |
| Ageing Due To Atmospheric Agents (ASTM G 53,UNI 8202/29) *(U.V Test weathering)* | Passed |
| Fatigue resistance at Joints (UNI 8202/32) | 200 cycles - passed<br>500 cycles - passed |
| Reaction to fire (EN 13501-1) | E |
| Adhesion Of Granules (EN-12039) | Max. ≤30% |
| Adhesion To Concrete ( *Torch Applied* ) (Pelage UEAtc) | 40 N/50mm |

*The declared average values represent the best performance achieved at the present state of our knowledge, MBT Tech reserves the possibility to change, without warning, the technical characteristics in order to make the product more responding to the application requirements. The choice of the type of membrane for the kind of use is at the purchaser's discretion .*