

MasterJoint™ 589 (Thoroseal® FX 100)

Cement and Acrylic Based Two Parts Flexible Waterproofing Coating for Negative - Positive Applications

Material Description

MasterJoint™ 589, is a cement and acrylic based two part flexible waterproofing coating used on concrete surfaces for negative-positive applications.

Complies with the EN 1504-2
Complies with the EN 14891

Areas of Application

- Indoor and outdoor areas for vertical and horizontal applications,
- Terraces (coating which is grey color should be protected)
- White colour should be used in UV exposed areas.
- Soft water (pH 3 to 7) tanks used in textile industry
- Water tanks and swimming pools
- Elevator pits
- In areas that are sensitive to movement, vibration and slight settling as part of the basic waterproofing system,
- Wetrooms like WC, bathroom, kitchen, and balcony
- To protect concrete from water, carbonation and salts
- Facilities like spa and hamams

Characteristics and Benefits

- Easy to prepare and apply.
- Applied by brush or spraying machine.
- Long working time.
- Resistant to negative and positive water pressure. (1 bar negative-1.5 bar positive)
- Water vapor permeable.
- Forms a perfect water impermeable, nondeformable coating under screeds and ceramic tiles with high adhesion performance and flexible structure.
- High durability.
- **MasterJoint™ 589** covers cracks up to 0.60 mm when applied as 2 mm thick and up to 1.20 mm when reinforced with waterproofing net.
- Suitable for pedestrian traffic.
- Highly resistant to carbon dioxide ions. Does not crack.
- Resistant to freeze-thaw cycle.
- White color has UV resistant.
- Can be safely used in drinking water tanks (has a test report).

Chemical Analysis Laboratory, and consistent with BS 6920 Standard Analysis Report.

Technical Properties		
Structure of the Material MasterJoint™ 589- Part A MasterJoint™ 589- Part B	Mineral Sealant, Polmer Modified Admixtures and Special Cement Copolymer Acrylic Dispersion	
Color	Grey and White	KR
Adhesion Strength	≥0,8 N/mm ² (28 days)	
Capillary Water Absorption (TS EN 1062-3)	w<0,1 kg/m ² .√h	
Application Ground Temperature	+5°C +30°C	
Service Temperature	-20°C +80°C	
Maturity Period	3-5 minutes	

The above values are based on +23°C and 50% relative humidity; higher temperatures shorten the time, lower temperatures lengthen it.

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Processing Method

(A) Preparation of Substrate

Application substrate must be dry, sound mainly smooth, clean and fine pored, free from honey combs, voids, cracks, ridges, dust, tar, pitch forming oil, old paint and other bond breaking residues. Wooden or iron wedges must be removed from the surfaces and active water leakages must be prevented with **MasterJoint™ 591**. Voids and hollows must be filled with **MasterJoint™ 591** or **MasterCrete™ S88 C**. On vertical and horizontal corners fillet with min. 4 cm radius must be applied. Substrate must be dampened before application. If the coating loses its water rapidly, this means that substrate is not dampened enough. For the applications in hot and windy environment, only for the first coat, mixing water can be increased 10% at the recommended mixing water ratio.

(B) Mixing

Pour liquid part B (**MasterJoint™ 589**) into a clean mixing container and slowly add powder part A (**MasterJoint™ 589**) while mixing with a 400-600 RPM mixer. Continue mixing for at least 3-5 minutes until a homogenous and uniform mixture is obtained. Wait for 3-5 minutes and mix again for approximately 30 seconds and becomes ready to use.

Mixing Ratio

MasterJoint™ 589	Part A	Part B
Mixture	25 kg	10 kg
Density of Mixture	1,44 kg/ltr	

(C) Processing

Prepared **MasterJoint™ 589** mixture is applied by Thoro brush or trowel as two or three layers. Brush application direction in each layer must be perpendicular to each other. Waiting period between each layer changes depending on environmental conditions. Reinforcement of **MasterJoint™ 589** with waterproofing mash: Apply first coat with Thoro brush

and lay down mash on the wet coating. Apply the second coat when the first coat is sufficiently cured and make sure that the mash is covered with **MasterJoint™ 589**.

Consumption

Coverage of First Layer: 1.50 kg/m² mixture
Coverage of Second Layer: 1.30 kg/m² mixture

Point to Consider

- Wait for the appropriate ambient and substrate temperature if it is less than 5°C or more than 30°C. Also application should not be made in very hot, rainy or windy weathers.
- **MasterJoint™ 589** applied in +23°C gains mechanic strength after 2 days, becomes impermeable to water after 7 days and gains final strength after 14 days. In exterior surface applications, the surface must be protected from sun, wind, frost or rain during the first 24 hours.
- Working and reaction time of cement and acrylic based systems are affected by environment and ground temperature and relative humidity in the air. Low temperatures slow down the chemical reaction and increase working period, coating time and work time. Also coverage decreases because viscosity increases. High temperatures accelerate the chemical reaction and times stated above are reduced depending on this. For the material to complete its curing, environment and ground temperatures must not fall down below the minimum allowed value.
- Wet film thickness must not pass 1.30 mm in single layer.
- The surfaces that will be walked on must be covered with screed prepared with admixture plaster **Binder5** or ceramic tiles. **MBT Tech** tile adhesives are recommended for tiling.

Cleaning of Tools

All the tools and equipments must be cleaned by water after the application. After **MasterJoint™ 589** is hardened, it can only be removed from the surface mechanically.

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Packaging

MasterJoint™ 589 is available in a 35 kg set.
Part A: 25 kg polyethylene reinforced kraft bag
Part B: 10 kg tin

Shelf Life

12 months after the production date under appropriate storing conditions. Part B of **MasterJoint™ 589** freezes below 0°C. Opened packages have to be stored by tightly sealing the bag/cover and must be used in one week.

Storage

Must be stored in unopened original packing, and in cool and dry environment protected from freezing. In short-term storing, maximum 3 palettes can be stowed on top of each other and delivery has to be according to first in first out system. In long-term storing, the palettes must not be stowed on top of each other.

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 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**

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