

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
- White color has UV resistant.

- Facilities like spa and hamams
- Can be safely used in drinking water tanks (has a test report).

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

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.

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 (28 days)	≥0,8 N/mm ²	
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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- Resistant to freeze-thaw cycle.

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/lt	

(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 MasterCast® 125 or ceramic tiles. MBT Tech tile adhesives are recommended for tiling.

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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.

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 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

MBT Teknik Yapı Kimyasalları San. ve Tic. A.Ş.
Eyüp Sultan Mah. Sekmen Cad. Hayy 1000A No:26/8
Sancaktepe, İstanbul
Tel: 0216 561 35 45 www.mbt-tech.tr

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CE 25	
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Eyüp Sultan Mah. Sekmen Cad. HAYY 1000A No:26 K:5 D:8, 34885 Sancaktepe, İstanbul, Türkiye	
DOP NO: 2402003	
TS EN 14891 CM P	
MasterJoint™ 589 (Thoroseal® FX 100) Yapıştırıcılarla tutturulmuş seramik karoların altında kullanım için sıvı halde uygulanan su geçirmez ürünler (Liquid-applied water impermeable products for use beneath ceramic tiling bonded with adhesives) CM P: Sıvı halde uygulanan, klorlu su ile temasa dirençli, çimento ve benzeri bağlayıcı su geçirimsiz mamul CM P: Sıvı halde uygulanan klorlu su ile temasa dirençli, polimer modifiye su geçirimsizlik ürünü Polymer modified waterproofing product applied in liquid form resistant to contact with chlorinated water.	
Bağlanış çekme yapışma mukavemeti (Initial tensile adhesion strength)	≥ 0,5 N / mm ²
Suya daldırıldıktan sonra çekme yapışma mukavemeti (Tensile adhesion strength after water contact)	≥ 0,5 N / mm ²
Isıyla yaşlandırdıktan sonra çekme yapışma mukavemeti (Tensile adhesion strength after heat ageing)	≥ 0,5 N / mm ²
Donma-çözünme çevrimlerinden sonra çekme yapışma mukavemeti (Tensile adhesion strength after freeze-thaw cycles)	≥ 0,5 N / mm ²
Kireçli su ile temasa ettikten sonra çekme yapışma mukavemeti (Tensile adhesion strength after contact with lime water)	≥ 0,5 N / mm ²
Su Geçirimsizlik (Waterproofing)	≤ 20 g Penetrasyon Yok (No penetration)
Çatlak köprüleme yeteneği normal şartlarda (Crack bridging ability under standard conditions)	≥ 0,75 mm
Klorlu su ile temasa ettikten sonra çekme yapışma mukavemeti (Tensile adhesion strength after contact with chlorinated water)	≥ 0,5 N / mm ²

CE 2184	
MBT TEKNİK YAPI KİMYASALLARI SAN. VE TİC. A.Ş.	
Eyüp Sultan Mah. Sekmen Cad. HAYY 1000A No:26 K:5 D:8, 34885 Sancaktepe, İstanbul, Türkiye	
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DOP NO: 2102004	
2184-CPR-0450	
MasterJoint® 589 (Thoroseal® FX 100)	
TS EN 1504-2:2004 1.3 Yabancı madde girişine karşı koruma, 2.2 Nem Kontrolü, 8.2 Nem içeriğini sınırlayarak direnci artırma <i>1.3 Protection against ingress, 2.2 Moisture control, 8.2 Increasing resistivity</i>	
Beton için yüzey koruma sistemleri Surface protection systems for concrete	
Kaplama uygulaması Coating application	
Karbondioksit Geçirgenliği (Permeability to CO ₂)	> 50m SD
Kapiler Su Emme ve Su Geçirgenliği (Capillary Absorption and Permeability to water)	w<0,1 kg /m ² .y/h
Su Buharı Geçirgenliği (Permeability of water vapour)	Sınıf I (Class I)
Çekip koparma deneyi yoluyla yapışma dayanımı (Adhesion strength by pull-off test)	Çatlak kapatma veya esnek sistemler (trafik yükü olmadan) ≥ 0,8 N/mm ² Crack-bridging or flexible systems (without traffic load)
Yangına karşı tepki (Reaction to fire)	C-s1,d0
Tehlikeli maddeler (Dangerous substances)	Madde 5.3'e uygun (Comply with clause 5.3)

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