

MasterSeal® 589 (Formerly known as Thoroseal® FX100 TR)

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

DESCRIPTION OF PRODUCT

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

Complies with EN 1504-2

Complies with EN 14891

FIELDS OF APPLICATION

- Interior and exterior areas for vertical and horizontal applications
- Terraces (coating which is grey color should be protected)
- Soft water (pH 3 to 7) tanks used in textile industry
- Water tanks and swimming pools
- Elevator pits
- Wetrooms like WC, bathroom, kitchen, and balcony
- To protect concrete from water, carbonation and salts
- Facilities like spa and hamams

FEATURES 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.
- **MasterSeal® 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.

APPLICATION PROCEDURE


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 **MasterSeal® 591**. Voids and hollows must be filled with **MasterSeal® 591** or **MasterEmaco® S 488**. 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, extra mixing water can be added without exceeding 10% of the Part B.

Mixing

Pour liquid part B (**MasterSeal® 589**) into a clean mixing container and slowly add powder part A (**MasterSeal® 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.

TECHNICAL DATA

Material MasterSeal® 589 Part A MasterSeal® 589 Part B	Mineral Fillers, Polymer Modified Additives and Special Cement Copolymer Acrylic Dispersion	
Color	Grey and White	KR
Freeze – Thaw Resistance (ISO/DIS 4846,2)	No Deformation After 50 Cycles	
Adhesion Strength (28 days)	≥0,5 N/mm ²	
Resistance to Pressurized Water	1.0 bar (negative), 1.50 bar (positive)	
Capillary Water Absorption (TS EN 12808-5)	≤0,10 g (after 4 hours)	
Substrate Temperature	+5°C +30°C	
Service Temperature	-20°C +80°C	
Maturity Period	3-5 minutes	

Obtained in +23°C, 50% relative humidity conditions. Higher temperatures decrease the time, lower temperatures increase the time.

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Mixing Ratios

MasterSeal® 589	Part A	Part B
Mixture	25 kg	10 kg
Density of Mixture	1,44 kg/l	

APPLICATION

Prepared **MasterSeal® 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 **MasterSeal® 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 **MasterSeal® 589**.

COVERAGE

First Coat: 1.50 kg/m² mixture

Second Coat: 1.30 kg/m² mixture

WATCH POINTS

- 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.
- **MasterSeal® 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. **Master Builders Solutions** tile adhesives are recommended for tiling.

CLEANING OF TOOLS

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

PACKAGING

35 kg set

Part A: 25 kg polyethylene reinforced kraft bag

Part B: 10 kg tin

STORAGE

Must be stored in unopened original packing and in cool and dry environment protected from freezing. In short-term storing, maximum 3 palletes 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 palletes must not be stowed on top of each other.

SHELF LIFE

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

HEALTH AND SAFETY PRECAUTIONS

Work cloth, protective gloves, goggles and masks concordant with Work and Worker Health rules must be used during the application. Due to irritant effects of the non-cured material, avoid contact to skin and eyes during storing and application. If such a contact occurs, it must be washed by soap and plenty of water. Consult a physician urgently if swallowed. Food and drink must be kept outside the application areas. Must be stored away from children. Please look at the Material Safety Data Sheet for detailed information.

DISCLAIMER

The technical information given in this publication is based on the present state of our best scientific and practical knowledge. **Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd. Şti.** is only responsible for the quality of the product. **Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd. Şti.** 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.

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CONTACT INFORMATION

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MasterSeal® 589 Technical Data Sheet -Revision Date: 11/2020

	
<p>Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd. Şti. Adres: Barbaros Mah. Begonya Sok. Nidakule Kuzey Ataşehir, C Kapısı No:3 E/5, 34746 Ataşehir İstanbul 20 DOP NO: 03.14891.003 EN 14891:2012 MasterSeal 589</p>	
<p>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)</p>	
<p>CM O2P:Sıvı uygulanan polimer modifiyeli çimento esaslı su geçirmez ürün , düşük sıcaklıklarda(-20 °C) çatlak köprüleme özelliği artırılmış, klorlu sulara dayanımı artırılmış (CM O2P:Cementitious liquid-applied water impermeable product with improved crack bridging ability at low temperature (-20°C) and resistant to contact with chlorinated water)</p>	
Başlangıç 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 yaşlandırıldıktan 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 temas ettikten sonra çekme yapışma mukavemeti (Tensile adhesion strength after contact with lime water)	≥ 0,5 N / mm ²
Su Yalıtım (Waterproofing)	Penetrasyon Yok (No penetration)
Klorlu su ile temas ettikten sonra çekme yapışma mukavemeti (Tensile adhesion strength after contact with chlorinated water)	≥ 0,5 N / mm ²
Çatlak Köprüleme (Düşük Sıcaklıkta '-5°C') (Crack bridging ability at low temperature(-5°C))	≥ 0,75 mm
Çatlak Köprüleme (Düşük Sıcaklıkta '-20°C') (Crack bridging ability at low temperature(-20°C))	≥ 0,75 mm

	
1020	
<p>Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd. Şti. Adres: Barbaros Mah. Begonya Sok. Nidakule Kuzey Ataşehir, C Kapısı No:3 E/5, 34746 Ataşehir İstanbul 20 1020 – CPR – 040 065838 DOP NO: 02.1504.2.008</p>	
<p>EN 1504-2:2004 MasterSeal 589</p>	
<p>Beton Yapıların Korunması ve Tamiri İçin Mamuller ve Sistemler. Bölüm:2 Beton için Yüzey Koruma Sistemleri (Products and systems for the protection and repair of concrete structures Part 2: Surface protection systems for concrete)</p>	
<p>1.3 Yabancı madde girişine karşı koruma, 2.2 Nem Kontrolü, 8.2 Nem içeriğini sınırlayarak direnci artırma amaçlı kaplama malzemesi (Principles: 1.3 Protection against ingress, 2.2 Moisture control, 8.2 Increasing resistivity)</p>	
CO ₂ Geçirgenliği (Permeability to CO ₂)	CO ₂ Sı Geçirgenliği > 50m (CO ₂ SD Permeability > 50m)
Su Buharı Geçirgenliği (Permeability to water vapour)	Sınıf I (Class I)
Kapiler Su Emme ve Su Geçirgenliği (Capillary absorption and permeability to water)	w<0,1 kg /m ² .\h
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 trafficking:≥0,8 N/mm ² (0,5 min)
Yangına karşı tepki (Reaction to fire)	C-s1;d0
Tehlikeli maddeler (Dangerous substances)	Madde 5.4 'e uygun (Comply with clause 5.4)