

MasterJoint® 525

Cement and Acrylic Based Dual Part UV Resistant Flexible Waterproofing Material

Material Description

MasterJoint® 525, is a cement and acrylic based two parts waterproofing material that forms an effective barrier against salts carried by water and gases in the atmosphere and is used on concrete and cement based surfaces.

Complies with EN 1504-2 and EN 14891

Areas of Application

- Indoor and outdoor areas for vertical and horizontal applications
- Waterproofing of foundations and curtain walls
- Retaining walls
- Terraces (can be used without protecting the top in under light weights. Consult MBT Teknik Yapı Kimyasalları Sanayi ve Ticaret A.Ş. Technical Service for details)

- Wetrooms like WC, bathroom, kitchen and balcony
- Swimming pools
- Facilities like spa and hamams
- Sea water channels
- Against salty water where water impermeability and protection is needed
- To protect concrete surfaces from carbonation and chlorine attacks
- Walking ways of marinas
- 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

- 1 mm thick MasterJoint® 525 gives protection against

Technical Properties		
Structure of the Material MasterJoint® 525 Part A MasterJoint® 525 Part B	Mineral sealant, polmer modified admixtures and special cement Copolymer acrylic dispersion	
Color	Off White	
Adhesion Strength	$\geq 0,8 \text{ N/mm}^2$	KR
Flexual Strenght (EN 196-1)	$\geq 3,00 \text{ N/mm}^2$	
Elasticity Modules (EN 13412)	$\geq 2000 \text{ N/mm}^2$	
Water Impermeability (EN 14891-A.7)	$\leq 20 \text{ gr}$	
Capillary Water Absorption (EN 1062-3)	$w < 0,1 \text{ kg/m}^2 \cdot \text{vh}$	
Water Vapor Coefficient	$\geq 3,64 \times 10^{-4} \text{ cm}^2/\text{s}$	
Chlorine Ion Diffusion (ASTM C 1202)	260 Coulomb	
Chlorine Ion Diffusion Coefficient	$1,04 \times 10^{-7}$	
CO ₂ Diffusion Resistance	$S_c \geq 89 \text{ cm}$ (1 mm dry film thickness) S_c : Concrete Thickness Equivalent	
Application Ground Temperature	+5°C +25°C	
Service Temperature	-20°C +80°C	
Maturity Period	3-5 minutes	
Usage Period	2 hours	

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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- carbonizing equivalent to over 80 cm concrete.
- Water impermeable, resistant to 7 bars positive water pressure.
- Perfect adhesion property.
- Easy to prepare and apply.
- Applied by brush or spraying machine.
- Long working time.
- White in color and resistant to UV rays.
- Suitable for pedestrian traffic.
- Water vapor permeable.
- High durability.
- Resistant to freeze-thaw cycle.
- Highly resistant to carbon dioxide and chlorine ions.
- Although traditional waterproofing materials require 7-28 days curing period, MasterJoint® 525 can be applied on green concrete.

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, extra mixing water can be added without exceeding 10% of the part B.

(B) Mixing

Pour liquid Part B (MasterJoint® 525) into a clean mixing container and slowly add powder Part A (MasterJoint® 525) 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® 525	Part A	Part B
Mixture Water	25 kg	8 kg
Density of Mixture	1,80 kg/liter	

(C) Processing

Prepared MasterJoint® 525 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.

Consumption

First Layer: 1.50 kg/m² mixture

Second Layer: 1.50 kg/m² mixture

Third Layer: 1.00 kg/m² mixture

Point to Consider

- Wait for the appropriate ambient and substrate temperature if it is less than 5°C or more than 25°C. Also application should not be made in very hot, rainy or windy weathers.
- MasterJoint® 525 applied in +23°C gains mechanic strength after 2 days, becomes impermeable to water after 7 days and gains final strength after 14 days.
- 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

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allowed value.

- In exterior surface applications, the surface must be protected from sun, wind, frost or rain during the first 24 hours.
- Wet film thickness must not pass 1.2 mm in single layer.
- The surfaces that will be walked on must be covered with screed 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® 525 is hardened, it can only be removed from the surface mechanically.

Packaging

MasterJoint® 525 is available in a 33 kg set.

Part A: 25 kg polyethylene reinforced kraft bag

Part B: 8 kg tin

Shelf Life

12 months after the production date under appropriate storing conditions. Part B of MasterJoint® 525 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

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 25	
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MasterJoint® 525 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 hâlde uygulanan, klorlu su ile temasa dirençli, polimer modifiye su geçirimsizlik ürünü Polymer modified waterproofing product applied in liquid form, with resistant to contact with chlorinated water	
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 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 temas ettikten sonra çekme yapışma mukavemeti (Tensile adhesion strength after contact with chlorinated water)	≥ 0,5 N / mm ²

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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 DOP NO 2102003 2184-CPR-0450 MasterJoint® 525	
TS EN 1504-2:2004 1.3 Yabancı madde girişine karşı koruma, 2.2 Nem Kontrolü, 8.2 Nem içeriğini sınırlayarak direnci artırma 1.3 Protection against ingress, 2.2 Moisture control, 8.2 Increasing resistivity	
Beton için yüzey koruma sistemleri Surface protection systems for concrete	
Kaplama uygulaması Coating application	
Karbondoksit 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 .Vh
Su Buharı Geçirgenliği (Permeability of water vapour)	Sınıf I (Class I)
Çekilip 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)	B-s1,d0
Tehlikeli maddeler (Dangerous substances)	Madde 5.3'e uygun (Comply with clause 5.3)

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