

MasterJoint™ 645

Polymer Modified Bitumen Rubber Based, Two Parts Waterproofing Coating

Material Description

MasterJoint™ 645 is cement and modified bitumen emulsion based, two parts, pasty consistency, high durability waterproofing coating.

Complies with EN 15814

Areas of Application

- Indoor and outdoor areas for vertical and horizontal applications
- For tanking against pressurised water
- For foundations and curtain walls (Tanking)
- For waterproofing of retaining walls
- Protection of concrete against aggressive water and micro-organisms from the ground, (DIN 4030)
- For bonding of insulation boards. (Perimeter insulation)
- For waterproofing of flowerpots

Characteristics and Benefits

- Suitable for horizontal and vertical applications.
- Bridges shrinkage cracks with its elastic behaviour.
- Easy to prepare and use.
- Longer pot life for extended workability.
- Resistant to freeze thaw cycle.

- Resistant to bacterial attacks, salts and acids in the soil.
- Thicknesses of up to 6mm can be achieved in a single coat by trowel application.
- Easy to apply with trowel and brush.
- Solvent free and environment friendly.

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 surface 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. Priming the substrate with diluted **MasterJoint™ 645** mixture is highly recommended.

(B) Mixing

Add Part B slowly into Part A (in the plastic pail) while mixing with 400-600 rpm electric drill. Mix at least 3-5 minutes until homogenous, lump free, pasty

Technical Properties

Structure of the Material MasterJoint™ 645 Part A MasterJoint™ 645 Part B	Rubber and Polymer Modified Bitumen Emulsion Dry Mixture of Special Cement and Sand	
Color	Brown (after drying: black)	KR
Consistency	Pasty	
Density of Mixture	1,09 kg/l	
Application Ground Temperature	+5°C +30°C	
Service Temperature	-20°C +80°C	
Exposure to Water	~48 Hours	
Open (Working) Time	~1 hour	
Curing Time	~24 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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consistency obtained. Wait for 3-5 minutes and mix again about 30 seconds to make ready for application. Mix as much material as can be applied within the pot life.

Mixing Ratio

MasterJoint™ 645	Part A	Part B
Mixture Water	24 kg	8 kg
Density of Mixture	1,09 kg/liter	

(C) Processing

Primer Application

Mix the material as described. Take enough amount of material and dilute 1:5 of water depending on the substrate absorbency. Mix with 400-600 rpm electric drill until lump free, homogenous consistency obtained. Apply equally on the substrate with a brush and do not allow accumulation on horizontal surfaces. Wait for the primer to dry and proceed with the application.

Coating Application

MasterJoint™ 645 A and B components are mixed. Apply the amount of product specified in the consumption table according to the ambient conditions to be applied with the help of a brush or trowel.

Protection of the Coating

Wait until the waterproofing coating sufficiently cured before backfilling the excavation. **MasterJoint™ 645** must be protected from damages during the backfilling with a suitable drainage or heat insulation boards. Sharp stones, rubbles and etc. are not suitable for excavation backfilling.

Consumption

Consumption per m ²	32 kg set
~3,00 kg/m ²	~10.6 m ²

Point to Consider

- Wait for the appropriate ambient and substrate temperature if it is less than 5°C or more than 30°C.
- Do not apply **MasterJoint™ 645** under the rain or prediction of rainy weather.
- Application must be protected from direct sunlight, wind, frost or rain in 24 hours.
- Working times of cement and bitumen emulsion based systems are affected from environmental and surface temperatures, and relative humidity in the air. In low temperatures the reaction slows down, and this increases working period and working time. High temperatures accelerate the reaction and the periods stated above decrease depending on this. In order to complete the curing of material, environmental and surface temperatures must not decrease below the minimum allowed temperature.
- Areas that are not fully cured must not be exposed to water.
- Coating has to be applied on the surfaces of structure or structure parts that contact with water.
- **MasterJoint™ 645** must be used within 1 hour after mixing.
- Do not use **MasterJoint™ 645** inside the potable water tanks and swimming pools.

Cleaning of Tools

All the tools and equipments must be cleaned by water after the application. Once **MasterJoint™ 645** is cured, it can only be mechanically removed from the surface by using a suitable solvent.

Packaging

MasterJoint™ 645 is available in a 32 kg set.

Part A: 24 kg plastic bucket

Part B: 8 kg tin polyethylene bag

Shelf Life

24 months after the production date under appropriate storing conditions. **MasterJoint™ 645**

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may freeze under 0°C. Tightly seal the cover of the opened pails and do not store more than one week.

Storage

Store in cool and dry conditions protected from frost. In short-term storage, maximum 2 palettes can be stored on top of each other and delivery must be according to first in first out system. In long-term storage, do not store palettes on top of each other.

Health and Safety


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. **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.

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TS EN 15814	
DOP NO 2401001	
MasterJoint™ 645	
Polimer Modifiye Edilmiş Bitümlü Kaplama Su Yalıtım Ürünü Polymer Modified Bituminous Thick Coating Waterproofing Product	
Su Geçirimsizlik Watertightness	Sınıf W2B Class W2B
Çatlak Köprüleme Kabiliyeti Crack Bridging Ability	Sınıf CB 2 Class CB 2
Su Direnci Water Resistance	Geçer Pass
Düşük Sıcaklıklarda Esneklik Flexibility at Low Temperature	Geçer Pass
Yüksek sıcaklıklarda Boyutsal Kararlılık Dimensional Stability at High Temperature	Geçer Pass
Yangına Karşı Tepki Reaction to Fire	E Sınıfı Class E
Yağmur Dayanımı Resistance to Rain	Sınıf R2 Class R2
Sıkıştırılmaya Karşı Direnç Resistance to Compression	Sınıf C0, Gerekli Değil Class C0, no requirements
Dayanıklılık Durability	Geçer Pass