

MasterSeal[®] 645 (Formerly known as Masterseal[®] 445)

Polymer Modified Bitumen Rubber Based, Two Parts Waterproofing Coating

DESCRIPTION OF PRODUCT

MasterSeal[®] **645** is cement and modified bitumen emulsion based, two parts, pasty consistency, high durability waterproofing coating.

Complies with EN 15814

FIELDS OF APPLICATION

- For vertical and horizontal applications
- For tanking against pressurised water
- For foundations and curtain walls (Tanking)
- For waterproofing of retaining walls
- For bonding of insulation boards. (Perimeter insulation)
- For waterproofing of flowerpots

FEATURES 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.
- Easy to apply with trowel and brush.

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 surface and active water leakages must be prevented with MasterSeal[®] 591. Voids and hollows must be filled with MasterSeal[®] 591 or

TECHNICAL DATA

MasterEmaco[®] S 488. On vertical and horizontal corners fillet with min. 4 cm radius must be applied. Priming the substrate with diluted **MasterSeal[®] 645** mixture is highly recommended.

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 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 Ratios

MasterSeal [®] 645	Part A	Part B
Mixture Water	21 kg	7 kg
Mixture Water	24 kg	8 kg
Density of Mixture	1,09 kg/lt	

APPLICATION

Primer Application

Mix the material as described. Take enough amount of material and dilute 1:3 or 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 until the primer sufficiently cured before the first coat application. Apply **MasterSeal® 645** with trowel or brush with the consumption mentioned on the coverage table.

Protection of the Coating

Wait until the waterproofing coating sufficiently cured before backfilling the excavation. **MasterSeal® 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.

Material MasterSeal [®] 645 Part A MasterSeal [®] 645 Part B	Rubber and Polymer Modified Bitumen Emulsion Dry mixture of speci and sand	al cement
Color	Brown (after drying: black)	KR
Consistency	Pasty	
Density of Mixture	1,09 kg/lt	
Substrate Temperature	+5°C +30°C	
Temperature Resistance (after curing)	-20°C +80°C	
Exposureto Water	~48 Hours	1
Open (Working) Time	~1 hour	
Curing Time	~24 hours	B

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





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COVERAGE

Consumption per m ²	28 kg set
~3,00 kg/m ²	~9,3 m²
Consumption per m ²	32 kg set

WATCH POINTS

- Wait for the appropriate ambient and substrate temperature if it is less then 5°C or more than 30°C.
- Do not apply MasterSeal[®] 645 under the rain or prediction of rainy weather.
- Application must be protected from direct sun-light, 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.
- MasterSeal[®] 645 must be used within 1 hour after mixing.
- Do not use MasterSeal[®] 645 inside the potable water tanks and swimming pools.

CLEANING OF TOOLS

Clean the tools and equipments with warm soapy water after the application. Once **MasterSeal® 645** is cured, it can only be mechanically removed from the surface by using a suitable solvent.

PACKAGING

28 kg set Part A: 21 kg plastic bucket Part B: 7 kg polyethylene bag

32 kg set Part A: 24 kg plastic bucket Part B: 8 kg polyethylene bag

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.

SHELF LIFE

24 months after the production date under appropriate storing conditions. **MasterSeal**[®] **645** may freeze under 0°C. Tightly seal the cover of the opened pails and do not store more than 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.

CONTACT INFORMATION

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MasterSeal[®] 645 Technical Data Sheet -Revision Date: 05/2021



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No:3 E/5, 34746 Atase	hir İstanbul		
20 DOP NO: 03.15814.002 EN 15814:2011+A2:2014 MasterSeal 645			
Zemin altı yapılarda binaların su yalıtımı için kullanılan polimer modifiye bitümlü kalın kaplamalar (PMBC) (Polymer modified bituminous thick coatings (PMBC) used for the waterproofing of buildings in below ground structures)			
Su Geçirmezlik	Sinif W2-B		
(Watertightness)	(Class W2-B)		
Çatlak Köprüleme Yeteneği (Crack Bridging Ability)	NPD		
Yağmura Dayanım (Resistance to Rain)	NPD		
Su Dayanımı (Water Resistance)	NPD		
Düşük sıcaklıkta esneklik (Flexibility at Low Temperature)	NPD		
Yüksek Sıcaklıkta boyutsal kararlılık (Dimensional stability at high temperature)	NPD		
Kurumada film kalınlığının azalması (Reduction of layer thickness when fully dried)	NPD		
Yangına tepki (Reaction to fire)	E		