

Hybrid Polymer Based, One Component Waterproofing Membrane

# **Material Description**

MasterJoint™ PR 665 is a hybrid polymer based, one component, elastic waterproofing and concrete protection membrane which can be applied by brush or roller.

Complies with EN 1504-2

### **Areas of Application**

- Indoors and outdoor areas for vertical and horizontal applications,
- Roofs
- Terraces
- Balconies
- Protection of polyurethane thermal insulation foam
- For waterproofing and protection of concrete bridge deck

### **Characteristics and Benefits**

- Excellent crack bridging capacity up to 5 mm
- Single part, ready and easy to use
- Can be applied on damp substrates
- Provides easy solutions for tough details
- Can be applied by brush or roller
- Resistance to water and humidity
- High water vapor permeability
- High elasticity and flexibility
- No bitumen, solvent or isocyanate
- UV and weather resistant.
- Can be applied without primer depending on the structure of substrates\*
- \* For different substrates please contact with Technical Department of **MBT Tech** Construction Chemicals

Technical Properties		
Structure of the Material	Hybrid Polymer	
Color	Grey	
Density	1,44 gr/cm <sup>3</sup>	
Crack Bridding	Up to 5 mm	
Elongation At Break Strength (DIN 53504)	% 250	
Viscosity	15000 mPa.s	
Shore A (EN ISO 868)	40	
Tear Strength (ASTM D 624)	2,76 N/mm <sup>2</sup>	
Permeability of Water Vapour (EN ISO 7783)	Sd: 0,868 m (Sınıf I: sd<5m)	
Tensile Strength (DIN 53504)	>0,8 N/mm²	
Application Temperature	+5°C - +35°C	
Service Temperature	-25°C - +80°C	
Pot Life	~1 hour	
Re-coating Interval		
+23°C	Min 8 hours	
+10 <sup>o</sup> C	Min 24 hours	

Typical values were obtained as a result of experiments at +23°C, 50% relative humidity conditions.







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# **Processing Method**

#### (A) Preparation of Substrate

All substrates (new and old) must be structurally sound, dry and free of latiance and loose particles. Clean of oil, grease, rubber skid marks, paint stains and other adhesion impairing contaminants.

Profile mechanically the surface by shot blasting high pressure water jetting or other suitale mechanical preparation method. Try to keep the temperatures uniform during application and hardening. The concrete surface subject to application should have passed its 28 day strength.

#### Concrete

The concrete substrates should be structurally sound, dry and clean. Oil, grease and other adhesion impairing contaminants should be removed. Bubble formation on the surfaces which absorbed oil should be removed with the usage of a blastrack or rotatiger. Oil contaminated substrates should first be precleaned with an emulsifying cleaning detergent according to the supplier's instructions. Finally, the concrete or cement screed surface should be cleaned by using a high pressured water jet and excess water should be removed by a wet/dry vacuum cleaner.

### **Asphalt**

Asphalt should be cleaned by high pressure water jetting. The load bearing capacity of the asphalt in applications under load, should be suitable for the intended use. The surface should be shotblasted so that at least 60% of the surface aggregates are exposed.

#### **Bitumen Felt**

Blisters should be opened and dried. Major cracks should be repaired and taped.

#### **Plywood**

All joints should be flushed and taped.

#### Iron / Steel

Iron/steel should be sand blasted to an SA 2.5 finish prior to the application of the primer.

#### **Primers**

Use the following table for the appropriate primer.

Aplication Surface	Primer
Concrete	
Dry	Without primer or MasterJoint PRI
	640
Damp	Without primer or MasterJoint PRI
	625
Iron and Steel	MasterJoint PRI 681
Stainless steel	Without primer or MasterJoint PRI
	681
Other Metals (Alumin,	MasterJoint PRI 684
copper etc.)	
Bitumen	MasterJoint PRI 698
Plywood	MasterJoint PRI 691
Ceramic	Without primer or MasterJoint PRI
	682
Aged <b>MasterJoint</b> <sup>™</sup> <b>PR</b>	MasterJoint PRI 691
<b>800/811</b> membranes	

For the application details of the appropriate primer prior to the application of **MasterJoint™ PR 665**, please refer to the **technical data sheet** of the product.

In case of sandblasting on the primer, the surplus sand should be swept away from the surface before the waterproofing application.

### (B) Application

MasterJoint™ PR 665 is a one component, ready-touse material. It is poured homogeneously onto the surface after being thoroughly mixed. It should then be applied equally on the surface as one or two layers by way of a roller or brush.

MasterJoint<sup>™</sup> PR 665 first layer application is made with a consumption of 1,3 – 1,5 kg/m² per square meter. The second layer should then be applied with 1,3 – 1,5 kg/m² consumption after the first layer is thoroughly dry.







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## Consumption

About  $2.6 - 3.0 \text{ kg/m}^2$  for two layers depending on surface roughness.

#### **Point to Consider**

- Do not apply at temperatures below +5°C nor above +35°C.
- Operating and reaction times of hybrid polymer based systems are affected from environment and surface temperature as well as the relative humidity in the air. The reaction slows down at low temperatures which increases working time. High temperatures speed up the reaction thereby decrease the working time. The environment and surface temperatures should not decrease below the minimum allowed temperature in order to complete the curing of the material.
- The concrete surface subject to application should have passed its 28 day strength.

# **Cleaning of Tools**

All the tools and equipments must be cleaned by water after the application. After **MasterJoint™ PR 665** is hardened, it can only be removed from the surface mechanically.

#### **Packaging**

14 kg plastic buckets (7kg+7kg)

#### **Shelf Life**

9 months starting from the date of production in proper storage conditions. **MasterJoint**<sup>™</sup> **PR 665** freezes at temperatures below 0°C.

#### **Storage**

Must be stored in between +5 °C and +35 °C, unopened original packing, and in cool and dry environment protected from freezing. 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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MasterJoint™ PR 665			
TS EN 1504-2 Prensip 5 : Fiziksel Direnç, Yöntem 5.1, Prensip 8 : Artan direnç 8.2 Kaplama uygulaması (C)			
	koruma sistemleri systems for concrete		
Kaplama uygulaması Coating application			
Kapiler Su Emme ve Su Geçirgenliği (Capillary Absorption and Permeability to water)	w<0,1 kg /m².√h		
Çekip koparma deneyi yoluyla yapışma dayanımı (Adhesion strength by pull-off test)	≥ 0,8 N/mm²		
Çarpmaya Direnç Impact Resistance	Sınıf III : ≥ 20 Nm Class III : ≥ 20 Nm		
Aşınma Direnci (Taber Deneyi) Abrasion Resistance(Taber Test)	< 3000 mg		
Yangına karşı tepki (Reaction to fire)	E		
Tehlikeli maddeler (Dangerous substances)	Madde 5.3 'e uygun (Comply with clause 5.3)		



