MasterJoint™ PR 861

Polyurea Based, Two Component, Solvent Free, Thixotropic, Waterproofing Membrane

Material Description

MasterJoint™ PR 861 is a two component, solvent free, thixotropic, polyurea based waterproofing membrane with crack bridging capability for vertical surfaces.

Areas of Application

- Roofs, terraces and terrace gardens
- Aircraft hangars
- Tunnels
- Collecting tanks
- Underground water tanks
- Insulation and coating of car park decks
- Pools
- Channels
- Warehouses

Characteristics and Benefits

- High mechanical resistances.
- Can be applied to vertical surfaces.
- Provides easy solutions in complicated details.
- Used safely without attending to the solutions for corner, side and joint.
- Quick application and curing.
- Provides monolithic application, no joints or laps.
- Can be adhered to many surfaces with the right primer.
- 100% adherence to the substrate.
- Low risk of blistering owing to water vapour permeability.
- Crack bridging properties.
- Resistant to standing water.
- Solvent free.

Technical Properties	
Structure of the Material **MasterJoint™ PR 861** Part A **MasterJoint™ PR 861** Part B	 Polyurea Resin Polyurea Hardener
Density	1,16 kg/lt
Viscosity	Thixotropic
Shore A Hardness	75
Tensile Strength DIN53504	≥14 N/mm^2
Elongation DIN53504	≥800 %
E Module DIN53515	≥11 N/mm^2
Working Time 10^{0}C 25^{0}C 30^{0}C	 10^{0}C 35 min. 20^{0}C 25 min. 30^{0}C 15 min.
Re-coating Interval 10^{0}C 25^{0}C 30^{0}C	 Min. 8-10 h Min. 5-6 h Min. 5 h
Substrate and Ambient Temperatures	Min. 5^{0}C Max. 30^{0}C
Permissible Relative Humidity	Max. %90

MasterJoint™ PR 861

Polyurea Based, Two Component, Solvent Free, Thixotropic, Waterproofing Membrane

Processing Method

(A) Preparation of Substrate

MasterJoint™ PR 861 application, substrate preparation and use of the appropriate primer are extremely important. The concrete substrates on which the product is going to be applied should be C25 or dosage of 350 minimum and the concrete should be 3 weeks old at least. After the preparation of the surface, the tensile strength of the substrate should exceed 1.5 N/mm^2 (tested with an approved pull-off tester at a load rate of 100 N/s). The residual moisture content of the substrate should not exceed 4 % (tested with e.g. CM device). A damp proof course should be installed properly and be inact. The substrate temperature should remain +8°C minimum and the temperature of the substrate should at least be 3 K above the current dew point.
All 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 pre-cleaned 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.

Concrete

The substrates on which **MasterJoint™ PR 861** is to be applied should be primed with the appropriate **MasterCoat™** primer. It should be applied on the primed surface which has been maintained for coating, within the recoating interval.

Primer

Substrate	Primer
Concrete/Cementitous Screed	**MasterCoat™ PRI 617** followed by **MasterJoint™ PRI 691**
Aged **MasterJoint™** Membranes	**MasterJoint™ PRI 691**

(B) Mixing

MasterJoint™ PR 861 is supplied as ready to use kits in the exact ratio. Before mixing, precondition both A and B parts to the temperature of approximately +15 to +25°C. **MasterJoint™ PR 861** part B is pigmented. Mix the part B with an epoxy/polyurethane paddled drill at 300-400 rpm for 3-4 minutes until a homogenous colour is achieved without causing air bubbles. Pour the entire contents of part A into the container of part B; make sure that there is no product left in the part A package. Scrape well the sides and the bottom of the container to ensure a thorough mixing. After mixing **MasterJoint™ PR 861** parts for 3-4 minutes, pour the mix into a fresh container, set it aside for a while and mix for another minute.

Mixing Ratio

MasterJoint™ PR 861	Part A	Part B
Mixing Ratio	8,3 kg	16,6 kg
Mixing Density	1,16 kg/lt	

(C) Processing

MasterJoint™ PR 861 should be applied with a notched trowel or wiper to obtain the desired thickness.

Top Coat

MasterJoint™ PR 861 does not have sufficient UV resistance. A number of top coats are available depending on the use and purpose. Please consult your **MBT Tech** technical services for suitable materials.

Consumption

Per 1 mm 1,20 kg/m^2

MasterJoint™ PR 861

Polyurea Based, Two Component, Solvent Free, Thixotropic, Waterproofing Membrane

Point to Consider

- Avoid application under excessive heat or wind and/or when the ambient and/or substrate temperature is below +10°C or above +30°C.
- The materials to be used at the appropriate temperatures should be brought and stored in the application area 1 - 2 days prior to the application and enabled to adjust the ambient conditions.
- In extremely cold conditions, heaters should be used to increase the ambient and the workability of the product, the packages should be preconditioned to +20 - +25°C to become ready to use.
- Epoxy and polyurethane based floor coatings should be applied by specialists.
- **MasterJoint™ PR 861** is supplied as ready-touse kits. No solvent or same admixtures should be added during application.
- Mixing should be done with a mechanical drill at 300 - 400 rpm with epoxy/polyurethane mixing paddles.
- The reaction and workability times of resin based systems depend on the ambient and substrate temperatures as well as the relative humudity. Under lower temperatures, the chemical reaction times are prolonged and this incrases the pot life, coating interval and the working time. High temperatures ignite stronger chemical reactions and the above mentioned times decrease accordingly. For the material to be cured properly, the ambient and the substrate temperatures should not fall below the specified limits. After the application, the material should be protected from direct contact with water for 24 hours minimum. Within this period, a contact with water may cause a surface carbonation and/or tackiness; both of which will cause the coating to lose its characteristics. In such cases, the overall coating should be removed from the floor and renewed.
- DO NOT MIX BY HAND.
- After the first mix, contents should be poured into a clean container and mixed once again. If the mixing is poured from the first container for applying, the non-react, free components will not hardening to remain on the surface.
- The empty packs should be consolidated and disposed properly in order to prevent reusing of the packages.

Cleaning of Tools

All the tools and equipments must be cleaned by solvent after the application. After **MasterJoint™ PR 861** is hardened, it can only be removed from the surface mechanically.

Packaging

24,9 kg set
Part A: 8,3 kg drum
Part B: 16,6 kg drum

Shelf Life

12 months after the production date under appropriate storing conditions. Opened packages have to be stored by tightly sealing the bag, and must be used in one week.

Storage

Must be stored in unopened original packing, and in cool (+5°C and +35°C) and dry environment protected from freezing.

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.

MasterJoint™ PR 861

Polyurea Based, Two Component, Solvent Free, Thixotropic, Waterproofing Membrane

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

MBT Teknik Yapı Kimyasalları San. ve Tic. A.Ş.
Eyüp Sultan Mah. Sekmen Cad. Hayy 1000A
No:26/8 Sancaktepe, İstanbul
Tel: 0216 561 35 45 www.mbt-tech.tr

CE

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	
25	
DOP NO 1102005	
EN 13813 SR-B1.5-E_{fl}	
MasterJoint™ PR 861	
İç mekan kullanımına uygun reçine kaplama harcı Resin screed mortar for indoor use	
Aşınma Direnci Wear resistance	AR 0.5
Çarpma Direnci Impact Resistance	≥ 8 N.m
Bağ Dayanımı Bond strength	B1.5
Aşındırıcı maddelerin salınımı Release of corrosive substances	SR
Yangına Karşı Tepki Reaction To Fire	E_{fl}
Tehlikeli maddeler (Dangerous substances)	Güvenlik bilgi formu Safety data sheet

CE

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	
25	
DOP NO 2101010	
MasterJoint™ PR 861	
TS EN 1504-2 Nem kontrolü 2.2, Fiziksel direnç 5.1, Kimyasal direnç 6.1 Artan direnç 8.2 2.2 Moisture control, 5.1 Physical resistance, 6.1 Chemical resistance, 8.2 Increasing resistivity	
Beton için yüzey koruma sistemleri Surface protection systems for concrete	
Kaplama uygulaması Coating application	
Aşınma Direnci (Abrasion Resistance)	< 3000 mg
Su Buharı Geçirgenliği (Permeability of water vapour)	Sınıf 1 (Class 1)
Kapiler Su Emme ve Su Geçirgenliği (Capillary Absorption and Permeability to water)	w<0,1 kg /m².vh
Sıcaklıkla Değişim Tolaransı (Temperature change tolerance)	2,7 Mpa
Kimyasallara Dayanım (Resistance to chemicals)	*P 9675
Çatlak Köprüleme (Crack bridging ability)	25 mm (-20°C) A4
Çarpmaya Direnç (Impact resistance)	≥ 8 Nm
Çekip koparma deneyi yoluyla yapışma dayanımı (Adhesion strength by pull-off test)	Çatlak kapatma veya esnek sistemler (trafik yükü ile) ≥ 2,0 N/mm² Crack bridging or/flexible systems (with traffic load)
Yangına karşı tepki (Reaction to fire)	E
Tehlikeli maddeler (Dangerous substances)	Madde 5.4 'e uygun (Comply with clause 5.4)