

# MasterSeal® 620 (Formerly known as Masterseal® 420)

## Bitumen Rubber Latex Emulsion Based Waterproofing Material

### DESCRIPTION OF PRODUCT

**MasterSeal® 620** is a bitumen/rubber latex emulsion based perfectly adhering waterproofing material that forms a seamless, flexible, damp proof, and vapor proof membrane.

Complies with EN 15814

### FIELDS OF APPLICATION

- Interior and exterior areas for vertical and horizontal applications from the direction of coming water
- For waterproofing on roofs, insulations with felt, and asphalt, lead, zinc, aluminum, concrete, light concrete, wooden, slate, wavy sheet surfaces
- Retaining walls
- Waterproofing of main curtains and culverts
- Insulation of parts of artworks under the soil against water and moisture
- As water and moisture barrier for the surfaces of interior and exterior walls that contact with soil
- In adhesion of heat insulation sheets

### FEATURES AND BENEFITS

- Single part.
- Ready to use and easy to apply.
- Applied by brush or spray machine.
- Can be applied on fresh concrete and slightly damp surfaces.
- Forms seamless, permanent, moisture and water proof coating.
- Resistant to chemicals and salt solution in the soil.
- Resistant to freeze-thaw cycle.
- Does not contain solvents and it is environmental friendly.

### 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 **MasterEmaco® S 488**. On vertical and horizontal corners fillet with min. 4 cm radius must be applied. Priming the substrate with diluted **MasterSeal® 620** mixture is highly recommended.

#### Mixing

Since **MasterSeal® 620** consists of a single part, it doesn't require mixing.

#### Primer Application

Take 1 liter of material and dilute with 6 liters of water. 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. **MasterSeal® 620** can be applied with a brush, roll or suitable spraying machine as stated in coverage table according to environmental conditions during the application. In below ground applications, it can be applied to green concrete surfaces right away. After the first layer is applied, the surface has to be sandblasted with No:1 silica sand before it dries. After the surface is dried, sands on the surface are cleaned by a brush and the second layer is applied. This process can be repeated for other layers if necessary. If a protective layer is needed on top of **MasterSeal® 620**, then No:1 silica sand is gritted on the last layer before the surface dries. After the surface is dried, sands on the surface are cleaned by a brush. Coating like screed, plaster, and render can be applied on the dried surface.

### TECHNICAL DATA

Material	Bitümen-Rubber Latex Emulsion
Color	Brown - Black
Consistency	Brush Consistency
Density	1.01 kg/liter
Substrate Temperature	+5°C +30°C
Service Temperature	-30°C +80°C

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

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#### COVERAGE

Areas of Application	Number of Coats	1 st coat	2 nd coat	3 rd coat
Waterproofing and protective coating of structures: Bridge abutments, retaining walls, culverts, concrete or brick foundations, concrete columns and beams	2 layers	0,50 lt/m <sup>2</sup>	0,45 lt/m <sup>2</sup>	-
Sandwich membrane	2 layers	0,65 lt/m <sup>2</sup>	0,65 lt/m <sup>2</sup>	0,45 lt/m <sup>2</sup>
Inner and outer reinforced concrete curtain walls	3 layers	0,45 lt/m <sup>2</sup>	0,45 lt/m <sup>2</sup>	0,65 lt/m <sup>2</sup>
For waterproofing insulation on surfaces like roofs, felted insulations, asphalt, lead, zinc, alumium, concrete, light concrete, wood, slate, wavy sheet	3 layers	1,00 lt/m <sup>2</sup>	0,65 lt/m <sup>2</sup>	
As vapor barrier	2 layers	1,00 lt/m <sup>2</sup>	0,65 lt/m <sup>2</sup>	-
In adhesion of heat insulation sheets	1 layers	0,80 lt/m <sup>2</sup>	-	-
As key primer on special surfaces	2 layers	0,22 lt/m <sup>2</sup>	0,22 lt/m <sup>2</sup>	-

*When necessary, MasterSeal® 620 is diluted 1/6 ratio (0.02 liters MasterSeal® 620 + 0.12 liters water) and applied as 0.14 liter/m<sup>2</sup> primer layer. During the application, coverage can decrease up to 50% due to surface roughness. It should be dilution with 1/1 or 1/2 times water when you use as a primer of bituminous sheet membrane applications.*

#### Protection of Coating

Wait until the waterproofing coating sufficiently cured before backfilling the excavation. **MasterSeal® 620** 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.

#### WATCH POINTS

- Wait for the appropriate ambient and substrate temperature if it is less than 5°C or more than 30°C.
- Do not apply **MasterSeal® 620** 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® 620** must be used within 1 hour after mixing.

- Do not use **MasterSeal® 620** inside the potable water tanks and swimming pools.

#### CLEANING OF TOOLS

All the tools and equipments must be cleaned with soapy warm water after the application. When **MasterSeal® 620** is hardened, it can only be removed from the surface mechanically by using a suitable solvent.

#### PACKAGING

30 liter plastic bucket

#### STORAGE

Must be stored in a cool and dry warehouse protected from freezing and sunlight.

#### SHELF LIFE

24 months after the production date under appropriate storing conditions. **MasterSeal® 620** is frozen under 0°C. Opened packages have to be stored by tightly sealing the cover and must be used in one week.

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### 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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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 (Watertightness)	Sınıf W1 (Class W1)
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