

MasterSeal 6100 FX: Specification Clause

Application of 2 coats of one component, lightweight, elastic and flexible, cementitious waterproof membrane MasterSeal 6100 FX from Master Builders Solutions or similar approved, with minimum total approximate thickness of 2 mm.

With specific reduction of environmental impact and cost savings quantified and documented via Eco-Efficiency Analysis.

Per m2 surface €

The price includes the supply and installation of the complete waterproofing system but excludes substrate preparation and eventual mobile access elements and auxiliary equipment required for the installation.

Include following paragraphs to define the required characteristics of the membrane and the system

The waterproofing membrane will show evidence of fulfilling following characteristics:

- Density of mixed material (EN 1015-6): $\leq 1,3 \text{ g/cm}^3$
- Capillary water absorption (EN 1062-3): $< 0,05 \text{ kg/m}^2 \cdot \text{h}^{0,5}$
- Permeability to water vapour (EN ISO 7783-1; EN ISO 7783-2): $S_d < 2 \text{ m}$ (2 mm thickness)
- Permeability to carbon dioxide (EN 1062-6): $S_d > 100 \text{ m}$ (2 mm thickness)
- Water pressure resistance (positive, EN 12390-8): $\geq 5,0 \text{ bar}$
- Water pressure resistance (negative, UNI 8298-8): $\geq 2,0 \text{ bar}$
- Crack bridging (Static, EN 1062-7): $\geq A4$ (23°C); $\geq A3$ (-10°C)
- Crack bridging (Dinamic, EN 1062-7): $\geq B3.1$ (23°C; -10°C)
- Crack bridging (Without weathering, EN 1062-7): $\geq 2,0 \text{ mm}$ (23°C); $\geq 0,6 \text{ mm}$ (-10°C)
- Abrasion resistance (EN ISO 5470-1, Taber H22, 1000 g, 1000 c): $< 1200 \text{ mg}$
- Impact resistance (EN ISO 6271-1): $\geq 5 \text{ Nm}$
- Adhesion to concrete (EN 1542): $\geq 2,0 \text{ N/mm}^2$
- Adhesion to concrete after freeze-thaw cycling (EN 13687-1): $\geq 1,7 \text{ N/mm}^2$
- Ammonia emission first 15 minutes (EN ISO 16000-9:2006-9): $\leq 3 \text{ mg/m}^3$

These properties shall be documented by means of test reports after independent testing or supplier attestation after internal testing.

Certifications:

- CE mark according to EN 1504-2
- AbP acc. BRL A, Teil 2, lfd. Nr. 2.49 Ausgabe 2015/2
- BENOR Certificat acc. PTV-BB-562 and EN 1504-2
- EN ISO 16000-9: Indoor air: Determination of the emission on volatile organic compounds from building products and furnishing.

Include following paragraphs to define additional requirements related to installation procedure, documentation delivery or quality assurance.

System specification:

- Mechanically prepare the substrate using captive shot blasting, floor plane and/or diamond grinding as required to remove all contamination and provide a clean, sound substrate suitable to receive the product.
- Repairs to the substrate and other works must be completed using the appropriate Master Builders Solutions repair products in good time prior to the application. All surfaces to be coated must be sound, firmly fixed, clean, dry, smooth and free from voids or protrusions.
- All details, upstands, fixed elements, drainage outlets, etc., must be properly prepared and primed with the appropriate primer (see manufacturer datasheets). Internal corners must be treated prior to the application of waterproofing membrane by creating a coving using cementitious fast setting mortar MasterSeal 573.
- First coat of approx. 0,5 mm of MasterSeal 6100 FX will be applied into the substrate with a stiff brush, while still wet, to ensure an intimate bond to the substrate.
- MasterSeal 6100 FX polymer-modified cementitious waterproofing membrane will be spray or hand applied in approx. 1,5 mm thickness finishing in the opposite direction to the previous coat.
- All materials are to be mixed and installed in accordance with the manufacturer's instructions and good site practices.

Building Information electronic Modelling (BIM) tools:

Manufacturer will deliver 3D electronic objects of the system (including adequate primers according the considered substrate) to be included in specific electronic building modelling tools.

Quality assurance:

- **Manufacturer:** The product should be manufactured by a company certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9000 series and ISO 14001.
- **Application company:** The installer shall demonstrate qualifications to perform the work of this Section by submitting the following:
 1. Approval or certification (including specific training) by the product manufacturer.
 2. List of at least 5 projects of similar size and complexity to specified work or 5 years of experience in application of specified products and systems on projects of similar size and scope.
 3. Evidence of adequate equipment and trained field personnel to successfully complete the project.