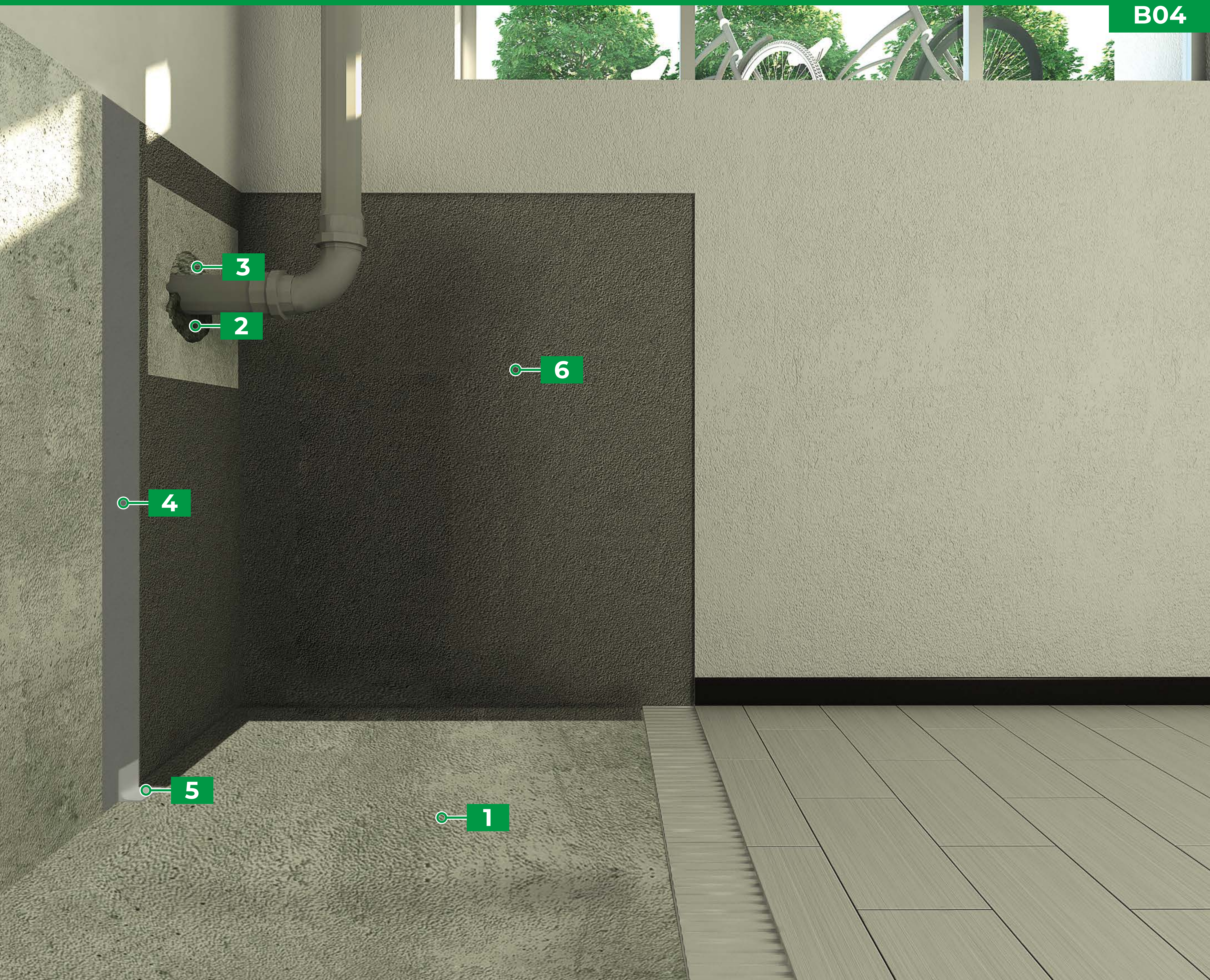


SYSTEM FOR WATERPROOFING WITH NEGATIVE HYDROSTATIC PRESSURE



B04



concrete



hydro-expansive paste
(where required)
Mapeproof Swell



repair mortar
Mapegrout T40



smoothing mortar
**Planitop Smooth &
Repair R4**



coving mortar
**Mapegrout T40 +
Eporip**



waterproofing membrane
Planiseal 88 OR **Mapelastico
Foundation**

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Please refer to the corresponding Work Method Statement for complete list of suitable products and installation information

PART 1 SYSTEM

1.1 SCOPE

This work method statement covers the systems for negative hydrostatic pressure waterproofing of concrete and masonry structures, in accordance with relevant standards, industry best practice and as per MAPEI technical data sheets (TDS).

1.2 REFERENCES

1. [Waterproofing Structures Installed Below Ground Level](#)
2. [Technical Design Waterproofing](#)

1.3 SUBSTRATE PREPARATION

All substrates must be structurally sound, dry, solid and stable. Any laitance, dust, grease, oil, paint, curing compounds or protruding mortar present on the surface of the concrete/masonry substrate that may inhibit bond or interfere with the application of a consistent film thickness, shall be mechanically removed. The substrate should then be cleaned and prepared in accordance with the relevant standards and as per the MAPEI technical data sheets (TDS).

1.4 HYDROPHILIC WATER-STOP – NEW BUILDS

A. **IDROSTOP (411-9-2008 GB)**

Hydrophilic expandable rubber section for watertight construction joints.

- **APPLICATION:**

- ◇ Measure the section length needed and cut **IDROSTOP** to this length to enable both extremities of the section to create either a butt joint or a staggered overlapped section, in accordance with the TDS.
- ◇ Apply **IDROSTOP** in accordance with the TDS.

1.5 HYDRAULIC BINDER– WHERE REQUIRED

- **NOTE:** The hydraulic binder sets extremely quickly and can even set during the mixing process in warm climatic conditions. Only prepare enough of the mix for use within one minute.

A. **LAMPOSILEX (204-4-2015 GB)**

Ultra-fast setting and curing hydraulic binder for stopping water leaks.

- **APPLICATION:**

- ◇ Mix **LAMPOSILEX** in strict accordance with the TDS and apply directly to the required areas without delay.

1.6 HYDRO-EXPANSIVE PASTE – WHERE REQUIRED

A. **MAPEPROOF SWELL (2063-9-2016 GB)**

Single component hydro-expansive paste supplied in cartridges, used to waterproof and seal cracks in concrete.

- **APPLICATION:**

- ◇ Apply a continuous bead evenly around the pipe-work or penetrating object, in accordance with the TDS.
- ◇ Limit the boundaries for expansion by confining **MAPEPROOF SWELL** with a suitable repair mortar such as, **MAPEGROUT T40** or **PLANITOP SMOOTH & REPAIR R4**.



1.7 SMOOTHING MORTAR – WHERE REQUIRED

- **WHERE TO USE:** To repair deteriorated areas, smooth uneven surfaces or to fill gaps in mortar joints to create a sufficiently even substrate.

Smoothing mortar to be chosen from the following options:

A. PLANITOP FAST 330 (2608-3-2017 GB)

Quick setting, fibre reinforced cementitious mortar for internal and external floors and walls, applied at a thickness from 3 to 30 mm to smooth out irregularities.

B. PLANITOP SMOOTH & REPAIR R4 (1136-9-2014)

Structural R4 class, rapid setting, shrinkage compensated, thixotropic, fibre reinforced, cementitious mortar, applied in a single layer from 3 to 40 mm thick, for repairing and smoothing concrete.

- **APPLICATION:**

- ◇ Saturate the substrate with water (Surface saturate dry, SSD), then wait until any excess water has evaporated.
- ◇ Apply the mortar with a smooth trowel in a single layer in accordance with the relevant thickness limits of the chosen product.
- ◇ Once repair work is complete and the material has hardened, keep the mortar damp for at least 24 hours using a water spray, especially in hot and windy environments.

1.8 COVING MORTAR – JUNCTIONS WHERE REQUIRED

A. MAPEGROUT T40 (308-10-2017 AUS)

Medium strength (40 MPa), shrinkage compensated, fibre reinforced, thixotropic mortar for repairing concrete.

- **APPLICATION:**

- ◇ Saturate the substrate with water (SSD) and allow excess/free-standing water to evaporate. As an alternative to improve the system, use **EPORIP** (366-7-2013) as a wet on wet bonding bridge to achieve a monolithic bond, refer to the TDS for further detail.
- ◇ Apply the mortar as a fillet with a float or trowel at all foundation/wall junctions wall/wall junctions, and any other point of expected movement.

- **NOTE:** **PLANITOP SMOOTH & REPAIR R4** may also be used in lieu of **MAPEGROUT T40**.



1.9 WATERPROOFING SYSTEM

- **NOTE:** Prior to the application of either waterproofing system:
 - ◇ Ensure structural joints are treated and sealed with **MAPEBAND TPE** (2033-11-2010) in strict accordance with the TDS.
 - ◇ Round off all sharp edges.

Waterproofing system to be chosen from the following options:

A. **PLANISEAL 88 (1148-01-2020 AUS) [Formerly known as IDROSILEX PRONTO]**

Osmotic cementitious mortar suitable for contact with drinking water, for waterproofing masonry and concrete structures.

- **APPLICATION:**

- ◇ Apply mortar with a brush or trowel in 2-3 coats.
- ◇ Ensure previous coat is sufficiently dry before subsequent applications.
- ◇ Observe the area to determine if additional coats are required.
- ◇ The final thickness should be a minimum of approximately 2-3 mm.

- **NOTE:** **PLANISEAL 88** is a rigid waterproofing mortar, if flexibility in the waterproofing layer is required, use **MAPELASTIC FOUNDATION**.

B. **MAPELASTIC FOUNDATION (2069-6-2019 GB)**

Two component, flexible cementitious membrane for waterproofing concrete surfaces subject to both positive and negative water pressure.

- **APPLICATION OF PRIMER:**

- ◇ Apply a coat of **PRIMER 3296** diluted 1:1 to the dry substrate, prior to application of **MAPELASTIC FOUNDATION**.
- ◇ Alternatively, if the substrate is damp but free of standing water, apply two coats of **PLANISEAL MR** in accordance with the TDS.

- **APPLICATION:**

- ◇ Waterproofing membrane must be applied in at least two coats of 1 mm with a trowel or roller within 60 minutes of it being mixed.
- ◇ It is recommended to embed **MAPETEX SEL** reinforcing fabric in the first wet coat of the membrane at the junctions over the cured cove fillet, in accordance with the TDS.
- ◇ Ensure the membrane is protected from abrasion, point loading and other forms of damage.

MAPEI provides technical data sheets (TDS) and safety data sheets (SDS) for all products which should be read in conjunction with this Work Method Statement (WMS). Where necessary, conduct a chemical risk assessment and SWMS to ensure each products' correct and safe use. These documents can be obtained from www.mapei.com.au, or by clicking directly on the products listed within the PDF.

This Work Method Statement (WMS) provides general recommendations only and is not intended to be interpreted as a generic specification for the application/installation of the listed products. As each project differs in exposure and site conditions, specific recommendations may vary from the information contained above. For recommendations for specific applications/installations please contact MAPEI Australia Pty Ltd.

