

PURTOP 400 M

Building Product Information Requirements Compliance Statement

Date: 16/11/2023 (version 1)

Product Name: **PURTOP 400 M**
Product Identifier: **PURTOP 400 M**

Product Line

PURTOP 400 M is a two component, solvent free, hybrid polyurea membrane applied by spray using a high pressure, bi-mixer pump to form waterproof coatings on bridge decks, roofs, decks and balcony's.

Product Description

PURTOP 400 M is a spray applied polyurea membrane used to waterproof structures. Due to its high tear strength and exceptional flexibility and resistance to chemicals, it is suitable for waterproofing both new and existing structures. For example:

- waterproofing bridge and viaduct decks
- waterproofing flat and inverted roofs – with topcoat finish
- waterproofing decks and balconies
- waterproofing sheet metal roofs
- waterproofing and protection of concrete in general

PURTOP 400 M has excellent bond strength and once reticulated, it forms a continuous strong, flexible membrane.

PURTOP 400M is supplied in metal drums.

- Part A: 220kg drum
- Part B: 225kg drum
- Colour: light grey

There are several ancillary products in the PURTOP 400M system including:

- Planiseal MR- vapor barrier primer for concrete
- Primer SN - 2-part resin primer for concrete or timber
- Primer EP Rust Stop - 2-part epoxy primer for rusted metal surfaces
- Mapedeck Primer 200 - 2 component polyurethane primer for metal substrates.

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WE SUPPLY THE FOLLOWING MAPEI GROUP BRANDS AND SYSTEMS:



- Primer PU60 - one component primer for use when applying subsequent coats of PURTOP 400 M and more than 24 hours has elapsed since the previous coat.
- Mapecoat PU 20 N - 2 component aliphatic polyurethane topcoat finish

For a complete range of suitable primers please refer to PURTOP 400M technical references:

- Purtop 400M – Technical datasheet (2120-6-2023)

Alternatively, request support at

www.mapei.com/nz/en/technical-and-commercial-support

Relevant Building Code Clauses

The following building code clauses are relevant to PURTOP 400 M

- B2 Durability
- E2 External moisture
- F hazardous building materials

Contribution to Compliance

B2 Durability - PURTOP 400 M meets this requirement. PURTOP 400 M is tested to BS EN 1504-2. Normal care and maintenance is required.

E2 External moisture - PURTOP 400 M meets this requirement. PURTOP 400M is tested to BS EN 1504 -2:2004.

F2 Hazardous building Materials – PURTOP 400 M is hazardous during application. Therefore, during application, safety measures detailed in the products SDS should be followed including the wearing of appropriate Personal Protective Equipment. Application of the PURTOP 400M is to be contained to a cordoned area, with only trained applicators with the correct PPE to be present. Once the product is cured and hardened, it is not hazardous and does not give rise to harmful gases or substances when exposed.

PURTOP 400 M complies with the following standards which support its contribution to compliance of the above Building Code clauses.

- **EN 1504 - 9** Products and systems for the protection and repair of concrete structures and **EN 1504-2** Waterproof Coatings (conforms with PI, MR, PR, RC, IR principles for concrete protection)
- **ETAG 033** – certified under asphalt on bridge decks, and carpark structures.
- **CEN/TS 14416** – Resistant to plant root penetration

Scope and Design Requirements

PURTOP 400 M, 2-part is applied by spray with a high-pressure Bi mixer pump, to form a waterproofing coatings on new and existing structures.

It is suitable for use on commercial, residential and infrastructure projects in the following applications and substrates:

New roofing & balconies

The scope limitations of NZBC Acceptable solution E2/AS1 regarding building height and floor plan area when subject to specific structural design, with substrates of plywood or suspended concrete slab, with minimum falls of

- plywood roofs of 1:30
- concrete substrates of 1:60
- plywood decks of 1:40

For concrete substrates the engineering design must comply with NZS 3101. In addition:

- Flat roofs or pitched roofs and decks constructed to drain water to gutters and drainage outlets complying with the NZBC.
- No steps within the deck level, no integral roof gardens and no down pipes directly discharging to the deck.
- PURTOP 400M must be continuously protected on balcony's and decks by a pedestal protection system.

Existing roof areas

Substrates include

- Concrete, or cementitious screeds
- Existing bitumen membranes
- Metal roofing
- Plywood & OSB panels.

Typical applications

- on roofs, balconies, and decks in residential
- on concrete parking structures in Commercial
- on roading applications / bridge decks in Infrastructure projects
- general waterproofing protection for concrete.
- footings, and retaining walls subject to plant roots and movement **CEN/TS 14416 tested.**

It is important to check the substrate to ensure it is suitable for the waterproofing system. The compressive strength of concrete must be at least 25 MPa and the substrate must be prepared correctly (ref: "Preparation of the Substrate" in PURTOP 400M technical datasheet 2120-6-2023).

Repairs to the substrate must be conducted with the most suitable Mapei selected product according to the thickness to be repaired, the time available and the operating conditions onsite.

The level of the humidity in the concrete substrate must not exceed 4%. A suitable vapour barrier primer may be used – like Planiseal MR, please check with the Technical Team at www.mapei.com/nz/en/technical-and-commercial-support

PURTOP 400M must be applied in layers at least 2mm thick and its short reaction time means it may also be applied on vertical surfaces. PURTOP 400M gradually turns yellow if exposed to UV rays. If the membrane is exposed to UV rays, apply Mapecoat PU 20 N, a two-component aliphatic polyurethane, applied by spray or roller coat to guarantee its durability.

Design Recommendations.

- Do not apply **PURTOP 400M** onto substrates polluted with oil, grease, or debris in general.
- Do not apply **PURTOP 400M** on substrates which have not been cleaned and primed correctly.
- Do not apply **PURTOP 400M** on substrates with rising damp.
- Do not use **PURTOP 400M** on surfaces constantly immersed in water (such as swimming pools, fountains, or water storage tanks)
- Do not use for collection of drinking water. Consider instead PURTOP 1000.

Conditions and Limitations of Use

- Installation of the membrane must strictly be completed by trained applicators approved by MBP (NZ) Ltd.
- Application of the PURTOP 400M is to be contained to a cordoned area, with only trained applicators with the correct PPE to be present.
- Installation of substrates must always be carried out in accordance with the PURTOP 400 technical literature and under supervision of a Licensed Building Practitioner (LBP) with the relevant license class.

Supporting Documentation

The following additional documentation supports the above statements:

Purtop 400 - datasheet (2120 -6 -2023)

<https://www.mapei.com/nz/en/landing-page-purtop-400m>

Purtop 400M - Care and Maintenance (Maintenance) 2021

<https://www.mapei.com/nz/en/landing-page-purtop-400m>

For further information supporting PURTOP 400 refer to our website.

Contact Details**Importer address for Service**

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Warnings and Bans

Purtop 400M is not subject to a warning or ban under section 26 of the Building Act 2004.

Version History

Version number	Written by	Reviewed by	Date issued	Changes from previous version
VI 16/11/2023	JP	PT	23/11/2023	New document