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MasterSeal® NP 474

Resilient, durable primerless polyurethane sealant and adhesive

DESCRIPTION

MasterSeal NP 474 is a single component polyurethane based sealant for floor joints, wall joints in public areas, prisons, schools, colleges, hospitals because of excellent resilience and pick resistance. It cures under the influence of atmospheric humidity and forms a chemical, good mechanical resistant and elastic joint sealant.

FIELD OF APPLICATIONS

- For interior and exterior application.
- For floor connection and expansion joints in buildings and civil structures
- Non corrosive
- For pedestrian and traffic areas (e.g. car decks/parks)
- For warehouse and production areas
- For ceramic tile coverings exposed to traffic (e.g. public areas, shopping centers)
- For medium chemical and mechanical loads (e.g. canteen kitchens, garages)
- As a strong resilient elastic adhesive for construction and industrial applications.

Contact your local Master Builders Solutions representative regarding any application required not mentioned here.

FEATURES AND BENEFITS

- Single component – easy to use
- Good mechanical and chemical resistance (see table)
- Excellent adhesion even without primer – see section priming
- Fast curing
- Forms a smooth blister free surface, only when applied onto dry substrates
- High elastic recovery
- Good weathering and aging resistance
- No thermo plasticity (no temperature softening)
- Fast skinning time. Low risk of dirt pickup.
- Complies to ISO 11600, IVD leaflet No. 1
- Quality audited.

PACKAGING

MasterSeal NP 474 is supplied in 310ml and 600ml cartridges.

COLOURS

MasterSeal NP 474 is available in:
Concrete Grey (RAL 7004), Off White (RAL 1015) and White (RAL 9010)

STANDARDS

SNJF F25E
EN 15651-1: F-EXT-INT-CC 25HM
EN 15651-4: PW-EXT-INT-CC 20HM
NF P 85-610

TECHNICAL DATA*

Density	1.19g/ml
Working temperature	from +5°C to +40°C
Movement Capability	± 25 % of joint width
Sag flow ISO 7390	<3mm
Skinning time	approx. 70 mins
Curing rate	approx. 3mm/day
Shore A hardness ISO 868	approx. 45
E-Modulus at 100% elongation	approx. 0.6N/mm²
Elongation at break	450%
Service temperature range	-30°C to +70°C
Tensile strength	1N/mm²

APPLICATION METHOD

Preparation:
All substrates (new and old) must be structurally sound, free of laitance and loose particles and clean of oil, grease, rubber skid marks, paint stains and other adhesion impairing contaminants.

Concrete, cementitious substrates (e.g. screeds, etc.)
Prepare the surface by grinding, sandblasting, or wire brushing. Remove remaining dust and particles by suitable measures such as the use of compressed air.
Repair damaged joint edges with appropriate **MasterEmaco** repair mortars.

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Metal
Remove scale, rust, coatings and any chemical residue or film from the metal.

Joint design:
The calculation of the joint design depends upon the technical characteristics of the joint sealant, the adjacent building materials, exposure of the building and its method of construction.
Therefore all joints must be properly designed by the architect and/or main contractor in line with the relevant standards.

Backer rod:
Prevent any three point bonding and ensure the recommended sealant depth (see table) by using a closed-cell backer rod. For flat joints prevent three point bonding by the use of a bond breaking tape.

Joint Width	Sealant Depth at midpoint
4mm	4mm
6-13mm	6mm
13-19mm	6-10mm
19-25mm	10-13mm
25-38mm	13mm

Install the backer rod by compressing and rolling it into the joint channel without stretching it lengthwise. Avoid puncture of the backer rod during installation. To achieve a smooth, clearly defined joint, mask the joint edges with self-adhesive tape before caulking. Remove the tape immediately after the joint surface is smoothened.

Primer coat:
Depending on the local building regulations, **MasterSeal NP 474** can be applied on concrete without a primer.
However in case of very porous, cementitious substrates such as poorly compacted or cracked concrete a primer needs to be applied to provide a seal on the substrate surface to avoid air from the substrate escaping into the uncured sealant. Priming is strongly recommended when joint is to be fully immersed, constantly wet or subject to heavy traffic.

Primer selection:
Porous substrates; e.g. concrete, masonry, renders: - **MasterSeal P 101**

Allow primer to flash off before sealant application and apply **MasterSeal NP 474** within the open time of the primer.

Do not prime or puncture the backer-rod.

Please note:
Primers only help to improve adhesion. They are not a substitute for correct substrate preparation, nor will they increase the strength of substrates significantly.

For further details please refer to the corresponding technical data sheet of the primers.

Application:
The product is supplied ready to use (no mixing required) and can be applied either with a manual or a pneumatic caulking gun.

Sausage application:
Place entire sausage into a suitable caulking gun. Cut off the clip at the very end of the sausage. Attach and cut nozzle to the desired joint diameter and apply the sealant.
Fill the joints from the deepest point to the surface with a properly shaped nozzle by applying the sealant material against the back of the joint. Assure full contact with the side of the joint and avoid entrapped air.

MasterSeal NP 474 can be used horizontally or vertically up to a joint width of 35mm. In case of wider joints, apply first the sealant to each side of the joint and smooth with a trowel to ensure adequate adhesion. Then fill the remaining cross section of the joint with additional sealant.

COVERAGE

The consumption depends on the size of the joint.
Consumption can be calculated as follows:
Joint width (mm) x Joint depth (mm) = ml of product / linear meter of joint.
Examples:
10 mm x 10 mm joints: approx. 100 ml/m.
15 mm x 8 mm joints: approx. 120 ml/m.
Approximate coverage per packaging

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Width joint	Depth joint	Coverage 600
10	8	7.5m
15	8	5m
20	10	3m

This consumption is theoretical and depends in particular on the evenness of the joint. In special cases a calculation based on in-situ tests might be required.

EQUIPMENT CLEANING

Tools can be cleaned from fresh material with a solvent cleaner. Once dry/cured they can only be cleaned mechanically.

STORAGE AND SHELF LIFE

MasterSeal NP 474 has a shelf life of 9 months in unopened original containers, if stored in cool and dry warehouse conditions.

WATCHPOINTS

- Do not apply at temperatures below +5°C or above +35°C.
- Do not use bitumen based backer rods.
- Do not use any smoothing agents containing alcohol.
- Light color shades such as white can be affected by environmental influences (e.g. UV radiation), however a change in the color shade does not affect the properties of the product.
- **MasterSeal NP 474** in combination with natural stones might cause staining.
- Spray joints in low humidity environments with mist immediately after smoothing to accelerate the curing process.
- Contact your local Master Builders Solutions representative prior the application of **MasterSeal NP 474** in joints that were previously filled with a silicone sealant.
- Best sealing practice is when joints are at the midpoint of their designed width. In case of sealing in different conditions consider additional movement of joints and evaluate the elastic performances of product.
- Do not mix with solvents or other materials that can alter product performance.

HEALTH AND SAFETY

Contains isocyanates, contact with the skin or eyes should be avoided, if ingested, DO NOT induce vomiting. Seek medical attention immediately. Refer to product MSDS.

NOTE

Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local BASF representative.

BASF reserves the right to have the true cause of any difficulty determined by accepted test methods.

QUALITY AND CARE

All products originating from BASF's Dubai, UAE facility are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001, ISO 14001 and OHSAS 18001.

* Properties listed are based on laboratory controlled tests.

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