BASF
The Chemical Company

# MASTERSEAL® 420

**A bitumen / rubber latex emulsion. Surface applied, flexible, damp and vapour-proof liquid membrane.**

## Description

MASTERSEAL® 420 is a brown rubber/bitumen liquid emulsion with excellent adhesion which dries to a tough black seamless, flexible waterproof and vapour-proof membrane.

## Primary uses

- Tanking and waterproofing structures: to provide an impervious waterproof membrane on concrete and brick.
- Floors: to provide a sandwich membrane in new construction or a surface treatment.
- Walls: for interior and exterior walls.
- Roofs: for the maintenance of many types of roofs including built-up felt, asphalt, lead, zinc, aluminium, concrete, lightweight screeds, timber, slate, asbestos cement, corrugated iron, and as a vapour barrier.
- As an adhesive: for bonding wood blocks and wood mosaics, insulation board, expanded polystyrene and cork tiles and to provide a key for plastering.

## Composition

MASTERSEAL® 420 is a thixotropic cold applied bitumen emulsion with added rubber latex.

## Packaging

MASTERSEAL® 420 is supplied in 200 litre containers.

## Standards

- The Building Regulations 1972.
- DOE 23 - Damp proof courses.
- DOE 77 - Adhesives used in buildings.
- BRE Digest 54 - Damp proofing solid floors.

## *Typical properties

| | |
|---|---|
| Colour: | Dark brown |
| Specific gravity: | 1.01 at 25°C |
| Coverage: | 1 - 4.5m² / litre |
| Flashpoint: | Non flammable |
| Service temperature: | -30°C to +100°C |
| Dry film thickness: | 1.16mm at 2litre / m² |
| Application temperature: | +5°C to 55°C |
| Rubber content: | 10% in the dried film |

## Application procedure

MASTERSEAL® 420 may be applied by brush or squeegee. All surfaces to which MASTERSEAL® 420 is applied must be sound, stable with an even finish and free from dirt, dust, loose debris, grease etc. It may be applied to damp but not waterlogged surfaces. Hot, very dry or porous surfaces should be dampened with a priming coat before MASTERSEAL® 420 is applied. Where subsequent coats are to be applied, the first coat must be dry.

## Below ground protection:

MASTERSEAL® 420 may be applied to green concrete immediately after shuttering has been removed. Blind the first coat with clean sharp sand to afford higher dry film thickness and aid monitoring layer applications.

## Sandwich membrane:

Two coats to be applied at right angles to give a D.F.T. of 770 microns. Blind second coat with clean sharp sand to provide a mechanical key for top screed (minimum thickness 50mm). MASTERSEAL® 420 membrane should marry up with D.P.C. (where applicable).

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**Walls with dampness**:
Remove any coatings and plaster back to the blockwork. Apply three coats of MASTERSEAL® 420 blinding the final layer with clean sharp sand whilst still tacky. Replaster using a render modified with RHEOMIX 141.

**Curing / Drying**

a. MASTERSEAL 420 will take longer to dry sufficiently for over-coating in low temperatures and high humidity.
b. Provisions of good ventilation will significantly reduce drying time.
c. When testing for watertightness by means of ponding water on the internal face, the MASTERSEAL 420 should be allowed to dry for 7 days.
d. Where MASTERSEAL 420 is not pond tested, it should be allowed to dry for 3-5 days before backfilling.

**Equipment care**
Before MASTERSEAL® 420 has dried, clean tools using soapy water. If dried, remove by scraping and with paraffin or white spirit.

**Specification clause**
**MASTERSEAL® 420:**
All areas indicated shall receive 2 or 3 coats as recommended of a high build rubber/ bitumen emulsion such as MASTERSEAL® 420 as manufactured by BASF, or similar approved.

**Coverage**

| | | m² / litre | | |
|---|---|---|---|---|
| Use | Number of coats | 1st coat | 2nd coat | 3rd coat |
| Priming coat: (when required) Diluted with six parts water | 1 | 7.50 | | |
| Waterproofing and protective coating of structures: Bridge abutments, retaining walls, culverts, concrete or brick foundations, concrete columns and beams. | 2 | 2 | 2.25 | |
| Floors: sandwich membrane<br>surface treatment | 2<br>2 | 1.50<br>2.00 | 1.50<br>2.00 | |
| Walls: interior and exterior | 3 | 2.25 | 2.25 | 2.25 |
| Roofs (with MASTERFLEX scrim) felt, asphalt, lead, zinc, aluminium, concrete, timber, slate or corrugated roofs.<br>Vapour barrier. | 3<br>2 | 1<br>1 | 1.50<br>1.50 | 1.50 |
| Adhesive: wood blocks, wood mosaics insulation board, expanded polystyrene, cork slabs.<br>Plastering on difficult surfaces. | 1<br>2 | 1.50<br>4.50 | <br>4.50 | |

**Safety precautions**
As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs. Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Reseal containers after use.

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**Storage**

Store under cover out of direct sunlight and protect from extremes of temperature. In tropical climates the product must be stored in an air conditioned environment. As with all bitumen emulsions, some settlement will occur with prolonged storage. It is, therefore, necessary to invert drums every other week to disperse the settlement.

Shelf life is up to 1 year, in unopened containers, when stored as above.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult BASF's Technical Services Department.

**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.

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* Properties listed are based on laboratory controlled tests.



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