# ISONEM BE 89
(Liquid Rubber Membrane)

## Product Description

ISONEM BE 89 is a 700% elastic liquid bitumen, rubber modified coating. After drying, it forms a waterproof coating on applied surfaces. High elasticity and crack hiding property. Suitable for insulations of old or new roofs and use under the ground, but not affected by underground waters. It strongly adheres to dry or slightly moist surfaces. It does not swell or peel off over time. Resistant to the plant roots. Also suitable for use in garden & terraces.

## Usage Areas

- Foundation, shear wall, external walls of the basement,
- Covering on old or new terraces or roofs,
- In the re-insulation of old bitumen or bitumen surfaces,
- On membranes or repairs,
- Roof gutters,
- In the insulation of concrete pipe, brick, wood, zinc, aerated concrete etc. surfaces,
- Protection of all concrete surfaces under the ground against corrosion.

## Technical Specifications

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|---|---|---|
| Density (25°C, g/mL) | : | 1,00 ± 0,10 |
| pH (25°C) | : | 7,0 – 9,0 |
| Viscosity (25°C, mPa.s) | : | 8000 - 10000 |
| Solid content (% Weight) | : | 53 ± 2 |
| Water transmission rate (kg/ $m^2$. $h^{0,5}$) | : | < 0,1 CLASS $W_3$ |
| Adhesion strength by pull-off test (N/mm$^2$) | : | Crack bridging flexible systems without trafficking ≥ 0,8 |
| Permeability to water vapour (m) | : | 5 ≤ $S_D$ ≤ 50 CLASS II |
| Touch-free Drying | : | 1 hour |
| Through-dry time | : | 72 hours |
| Pot life (23°C) | : | X |
| Solvent | : | Water |
| Class of fire reaction | : | B S1 d0 |
| Color | : | Black |

## Application Procedure

**Surface preparation:** Application surfaces should be dry or slightly damp. It should not be used in insulations which is from the negative side and on the basement wall where is appeared salt efflorescence. Application surfaces should be cleaned from all kinds of particles, dirt, a bonding agent, dust, mud. Firstly, gap, hole, crack and segregation on the surfaces should be repaired with ISONEM M03 elastic mortar by using ISONEM D10 Latex as bonding agent. If there is dilatation, it should be

filled with ISONEM A4 Elastic Filler. As a primer, ISONEM BE 89 is used as diluted with water 1:1. The primer is impregnated to surface via a hard brush and waited to dry completely. For applications on terraces and roofs, R-3 cm chamfer should be applied to the walls and parapet bottom before this process. In terrace and roof applications, it is recommended to lay an insulating mesh of 45 gr/m² and the application should be done with it. There is no need for mesh in the basement.

**Application method:** Ready to use. It should be mixed homogeneously before application. ISONEM BE 89 is applied by brush or roller without diluting to the surface 2-3 layers and waiting to dry between the layers. The application should be made in perpendicular layers each time. It is recommended to use the 45 g / m² insulation mesh between the floors in terraces and roofs or on floors with high risk of cracking. Application should not be made in high temperatures or frost. In summer, we recommend that the application be done in the morning or evening. It should be ensured that the roofs on which the application will be made are given the correct and sufficient slope for suitable water drainage Suitable water drainage. In order to avoid ponding on the roof. It is recommended to use with grout detail in chamfer applications.

## Application Conditions / Limitations

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| **Application** | : | In perpendicular to each layers |
| **Surface humidity** | : | Dry / slightly humid surface |
| **Primer usage** | : | ISONEM BE 89 (diluted) |
| **Primer consumption** | : | 200 - 300 g/m² |
| **Product usage** | : | 3 layers |
| **Product consumption** | : | 1 – 1,5 kg/m² |
| **Paintable (Coverage) Area** | : | 12 - 18 m²/ bucket |
| **Between two coats** | : | 4 hours |
| **Recommended application tools** | : | Roller (synthetic epoxy), brush, spray |
| **Application temperature (°C)** | : | 5 - 35 °C |

**Things to consider during and after the application:** The application surface must be clean and free from all impurities like dirt, oil, and mud.
**Other ISONEM products recommended:** ISONEM M 03 for segregation and concrete defects and rod holes, ISONEM A4 for dilatations.

## IMPORTANT

The surface should be protected from rain, water, mechanical loads and impacts for 24 hours during and after the application.

## Packaging & Storage

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|---|---|---|
| **Packaging** | : | 18 kg PP in buckets |
| **Storage temperature (°C)** | : | 5 - 35 °C |
| **Shelf life** | : | 24 months from date of production if stored in original, unopened, undamaged packages. |
| **Storage condition** | : | Store tightly closed in a dry and cool place. |

## Cleaning of Tools

Clean all tools and application equipment with clean water immediately after use.

## Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

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**2765-CPR-0136**
**TS EN 1504-2: Surface protection systems for concrete - Coating (BE 89)**
**DoP No: 08**

| | STANDARD VALUE | CONTROL VALUE |
|---|---|---|
| **Permeability to water vapour** | Class I $S_D < 5$ m *(permeable to water vapour)* Class II $5\,m \leq S_D \leq 50$ m Class III $S_D > 50$ m *(not permeable to water)* | Class II - 40 m |
| **Capillary absorption and permeability to water** | $w < 0{,}1$ kg/m$^2$.h$^{0,5}$ | $0{,}02$ kg/m$^2$.h$^{0,5}$ |
| **Adhesion strength by pull-off test** | Without trafficking $\geq 0{,}8$ N/mm$^2$ With trafficking $\geq 1{,}5$ N/mm$^2$ | Crack bridging flexible systems without trafficking $0{,}8$ N/mm² |
| Dangerous substances comply with 5.4 | | |
| Class of fire reaction: B S1 d0 | | |