

TECHNICAL DATA SHEET

ISONEM M 35

(Super Crystallized Waterproofing Mortar)

Product Description

It is a single component cement-based super crystalline waterproofing product. It provides insulation deeply by way of applying to concrete surfaces from both negative and positive sides. It reacts with lime particles thanks to inside super gels, produces crystals, and penetrates in-depth to the structure of concrete. It can be applied to new concrete surfaces. It slows down the hydration process on the surface it is applied to and reduces shrinkage crack formation. In addition to waterproofing, it protects concrete against corrosion and diluted chemicals.

Usage Areas

- Waterproofing of horizontal/vertical floors and walls, internally or externally,
- Water tank, wastewater, and other water tanks,
- In concrete surfaces exposed to seawater,
- In the basement floor and underground insulation,
- In the insulation of the basic curtain walls internally or externally,
- Irrigation channels and tunnel or dam structures.

Technical Specifications

Density (25°C, g/mL)	: -
pH (25°C)	: 12.0 – 13.0
Viscosity (25°C, mPa.s)	: -
Solid content (% Weight)	: -
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, with trafficking 1.5 N/mm ²
Permeability to water vapour (m)	: 5 ≤ S _D ≤ 50 CLASS II
Touch-free Drying	: 2 - 3 hours
Through-dry time	: 28 days
Pot life (23°C)	: X
Solvent	: Water
Class of fire reaction	: A2 S1 d0
Color	: Grey

Application Procedure

Surface preparation: The application surfaces should be dampened previously. The dampening process is made until the surface is saturated 2 hours before starting the application. This process is not necessary if the surface is damp or wet beforehand. The application surfaces should be cleaned from particles such as oil, dirt, mud. If there are segregation, concrete disturbances, and holes, firstly these should be repaired with ISONEM M 03 Elastic Repair Mortar with applying ISONEM D 10 LATEX.

Dilatations should be filled with ISONEM A4 elastic filler in advance. The mixture should be prepared after the surface is ready.

Preparation of the mixture: 8 L of clean water is poured into a suitable container. While continuous mixing ISONEM M 35 (25kg) should be poured slowly and stirring should be continued for 5 minutes. If possible, mix with a 400 rpm drill and mixer. When the mixing process is completed, it is obtained a paint-like mortar that can be applied with a homogeneous brush.

Application method: The application is applied in three coats by brush, wait for 4 hours between the layers. The application should be applied in opposite directions on each layer. The surface should completely close when it is applied to the surface by three layers. The application should not be done in frost and extreme temperatures and should be carried out in cool environments during the evening or early morning. If a frost occurs in cold areas, the floor or wall should be pre-watered with hot water. If the surface will not be covered and the plaster will not be applied after The M 35 application, the application surfaces should be humidified at 48 hours intervals. This process accelerates the curing process and provides more successful insulation.

Application Conditions / Limitations

Application	: In perpendicular to each layers
Surface humidity	: Humid surface
Primer usage	: X
Primer consumption	: X
Product usage	: 3 layers
Product consumption	: 2 - 3 kg/m ² (three layers application)
Paintable (Coverage) Area	: 8 - 12,5 m ² / bucket
Between two coats	: 2 - 4 hours
Recommended application tools	: Brush, suitable 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 D 10 LATEX + 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. Application should not be done in frost and extreme heat.

Packaging & Storage


Packaging	: 25 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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Isonem Paint and Insulation Technologies Construction Industry Trade Inc. - 35470/IZMIR ITOB OSB 10001 Sok. No:20 Tekeli Menderes / İzmir - TURKEY 19		
2765-CPR-0135 TS EN 1504-2: Surface protection systems for concrete - Coating (M 35) DoP No: 20		
	STANDARD VALUE	CONTROL VALUE
Permeability to water vapour	Class I $S_D < 5$ m (permeable to water vapour) Class II $5 \text{ m} \leq S_D \leq 50$ m Class III $S_D > 50$ m (not permeable to water)	Class II - 40 m
Capillary absorption and permeability to water	$w < 0,1 \text{ kg/m}^2 \cdot \text{h}^{0,5}$	$0,01 \text{ kg/m}^2 \cdot \text{h}^{0,5}$
Adhesion strength by pull-off test	Without trafficking $\geq 0,8 \text{ N/mm}^2$ With trafficking $\geq 1,5 \text{ N/mm}^2$	Crack bridging flexible systems without trafficking $0,8 \text{ N/mm}^2$ with trafficking $1,5 \text{ N/mm}^2$
Dangerous substances comply with 5.4		
Class of fire reaction: A2 S1 d0		

Statement of Responsibility

The technical information and application advice given in this ISONEM Paint & Insulation Technologies publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

