

TECHNICAL DATA SHEET

ISONEM ANTI FIRE PAINT

(Fire Retardant Paint)

Product Description

FIRE RETARDANT TOP COAT PAINT, It is a topcoat paint which is fire retardant, non-flammable, forms a whole layer with drying on the surface on which it is applied. It is flame retardant in direct contact with re. Resistant to re. It is water-based and solvent-free. It is elastic, unaffected by movements. It can be easily applied to dry or slightly humid surfaces. It is water-impermeable but water vapor permeable. Thanks to this feature, it does not prevent the breathing of the surface. It doesn't keep dirt for long years via its special formula. It is suitable for use in wood, concrete, prefabricated and steel structures.

Usage Areas

- All kinds of plastered, painted and unpainted interior and exterior surfaces
- Concrete, wood and steel structures
- In roofs, in fire steps
- In all places where non-flammability is desired
- In schools, kindergartens, hospitals, theaters, and theaters
- Plasterboard wall partitions and ceilings
- Thermal power plants and industrial buildings, factories, military facilities

SUMMARY OF TSE TEST RESULTS

- Average FIGRA value (W/s): 17,24
- Average THR600s (MJ): 0,93
- Value of average SMORA (m²/s²): 10,58
- Average TSP600s (m): 51,86
- Up to LFS line (mm): DID NOT OCCUR
- Burning drops/particles ≤ 10s: DID NOT OCCUR
- Burning drops/particles > 10s: DID NOT OCCUR

RESULT: ISONEM ANTI FIRE PAINT " reproof paint " test on TS EN 13823: MARCH 2010 standard in TS EN ISO 11925-2 on 02.2012 / 139921 as a result of the test and the test result TS EN 13501-1 / JANUARY 2010 Table B Complies with S1 class d0 criteria.

ACCORDING TO THE TEST RESULT OF TSE EXPERIMENT AND CALIBRATION CENTER PRESIDENCY EX LABORATORY; Reaction of the experiment sample to fire in EN 13501-1 B (in accordance with the European classification) test method: PASSED. In the test method according to the TS EN ISO 11925-2 of the experiment sample;

- Ignition of samples : DID NOT OCCUR
- 150 mm measuring line during the flame test period: DID NOT REACH
- Dripping of samples : DID NOT OCCUR
- Filter paper : DID NOT BURN· Experiment sample just : MELTED
- Lateral fire spread on the longitude : DID NOT OCCUR
- Fire particles or drops f <10s and f >10s : DID NOT OCCUR
- Smoke spread from the sample into the room : DID NOT OCCUR

Technical Specifications

Density (25°C, g/mL)	: 1,40 ± 0,10
pH (25°C)	: 7.0 – 9.0
Viscosity (25°C, mPa.s)	: 12500 - 15000
Solid content (% Weight)	: 76 ± 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	: All requested can be produced in colors

Application Procedure

Surface preparation: It is used as protective topcoat on surface which is applied ISONEM ANTIFIRE PAINT PLUS. ISONEM ANTIFIRE PAINT is applied single layer with 0.3 - 0.5 kg/m² consumption for topcoat application. If it is desired to be used as a flame retardant, surfaces should be clean before application, there be cleaned from impurities like dirt, oil, rust and, shield particles should be cleared. The appropriate primer selection for surface is made according to the following table. ISONEM UNIVERSAL PRIMER (1: 7 diluted with water - 1 part primer, 7 part water) insulation and paint primer should be applied one layer with 100 - 200 g/m² consumption. The primer is then allowed to dry for 4 hours. The appropriate amount of product should be used depending on the type of surface according to the table following the table.

Application method: It can be made with a brush, roller, or a suitable sprayer. The product should be mixed homogeneously before use and applied on the surface in two coats without reconstitution at 4 hours intervals.

Application Conditions / Limitations

Application	: In perpendicular to each layers
Surface humidity	: Dry surface For concrete, raw wood, membrane, shingle etc. surfaces: ISONEM UNIVERSAL PRIMER (diluted)
Primer usage	: For metal/steel surface; ISONEM ANTI RUST PRIMER (Consumption: 250 - 350 g/m ²)
Primer consumption	: 100 - 200 g/m ²

<u>Product usage</u>	: 2 layers (For concrete, raw wood, membrane, shingle etc. surfaces) 1 layer (For metal/steel etc. surface)
<u>Product consumption</u>	: 0,6 - 1,0 kg/m ² (2 layers, for concrete, raw wood, membrane, shingle etc. surfaces) 0,3 - 0,5 kg/m ² (1 layer, for metal/steel etc. surface)
<u>Paintable (Coverage) Area</u>	: 18 - 60 m ² /bucket (depending on application varies)
<u>Between two coats</u>	: 4 hours
<u>Recommended application tools</u>	: Roller (synthetic epoxy), brush, spray
<u>Application temperature (°C)</u>	: 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. To obtain the best performance, apply over ISONEM ANTI FIRE PAINT PLUS application as a topcoat.

Other ISONEM products recommended: In primer application, ISONEM UNIVERSAL PRIMER or ISONEM ANTI RUST PRIMER should be used depending on the application surface.

IMPORTANT

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

Packaging & Storage

<u>Packaging</u>	: 18 kg PP in buckets
<u>Storage temperature (°C)</u>	: 5 - 35 °C
<u>Shelf life</u>	: 24 months from date of production if stored in original, unopened, undamaged packages.
<u>Storage condition</u>	: 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-0136 TS EN 1504-2: Surface protection systems for concrete - Coating (ANTI-FIRE PAINT) DoP No: 03		
	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	$w < 0,1 \text{ kg/m}^2 \cdot \text{h}^{0,5}$	$0,05 \text{ kg/m}^2 \cdot \text{h}^{0,5}$
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 $0,8 \text{ N/mm}^2$
Dangerous substances comply with 5.4		
Class of fire reaction: B 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.

