ISONEM® ANTI-FIRE SOLUTION

Scan the QR code for product application video

Industrial Chemical

Non-Flammable and Fireproof Solution

ISONEM ANTI-FIRE fireproof solution surrounds the molecules of the applied material and disables the contact with oxygen. Thanks to active substances contained **Isonem Anti-Fire** create a very strong thermal isolation and prevent to reach heat which could start the burning process. Thus, the substance it is applied never burn. This product was tested on a plywood wooden door. The front side of 14 mm thick plywood was exposed to direct flame under a temperature of 1500 °C for 40 minutes, and at the end of this period, it is determined that the temperature of the back side only elevates to 120°C.

ISONEM ANTI-FIRE fireproof solution is a product which is produced of 100 % natural materials has no harm to human health, can 100 % soluble in nature and no contain banned materials. The fumes of a substance that is applied fireproof solution contain 50% less carbon dioxide and carbon monoxide than the natural state of the same substance. Besides, it is 20 - 25% richer in terms of smoke and nitrogen. Therefore, the suffocating effect of the smoke is reduced by half when the surface is not flammable. It is water-based, single-component.

What makes the ISONEM ANTI-FIRE Incombustibility Solution unique ?
First of all, we must indicate that ISONEM ANTI-FIRE fireproof solution is not a flame retarder, it provides an absolute incombustibility. When the flame retarder applied material (textile, wood etc.) exposed to flame, it burns, and when the flame is off, it extinguishes. The main issue is that the material should not continue to burn after exposure to the flame source. ISONEM Anti-Fire Solution applied material do not burst into flames.

USAGE AREAS AND FORM OF ISONEM ANTI-FIRE INSULATION SOLUTION :
For wood materials :
- It can be applied with impregnation in pools filled with ISONEM ANTI-FIRE solution according to absorption characteristics of wood, or it can be applied to the wood surface via the spray. On Mdf and Chipboards, if it complies with the tested dough, It is used in the first production stage. If it is used by impregnation in pools, the one day is enough for the holding period. On chipboard and MDF half an hour is enough. The absorption capacity of wood varies according to its hardness characteristic.

For paint industry:
- It is incompatible with the paint itself. Since the target dye is not burned, the application is as follows; Before painting or polishing, sanding is carried out and then ANTI-FIRE is applied immediately before painting, and then dried and definitely must be dry. Paint is made after this process.

For industry sector:
- Absorbent materials like fabrics, cotton, wool, sponges, etc. are wetted with ANTI-FIRE Solution, the not absorbed solution is squeezed out and dried, at the result of this process the materials are nonflammable and fireproof.

According to TSE TEST AND INSPECTION REPORT:
- INSPECTION AND EXPERIMENTS ARE DONE ACCORDING TO TS EN ISO 1716: 2010/JANUARY 2011
-According to TS EN ISO 1182 /02.02.2012 DATE/ 139913 NO., in the result of the inspection and experiments, approved to CLASS A1 according to the criteria EN 13501-1/JANUARY-1 CHART-1.

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

General Features
- Fireproof
- A1 Fire Class
- %100 Natural Product
- Water Base

TEST RESULTS ACCORDING TO IZMIR INSTITUTE OF TECHNOLOGY BIOLOGY DEPARTMENT RESEARCH LABORATORY

THE MATERIAL RESPONSE APPLICATION	RESULT
Paper - Sponge - Wood – Fabric – Cotton	NO BURNING

PHYSICAL AND CHEMICAL PROPERTIES
Appearance: Transparent
Boiling point: 98°C
Freezing point: -3°C
pH: 3,74 acidic
TDS (Hardness) 1% dilution: 739 ppm
Evaporation (60°/24 hours): 50%
Glare: None
Combustion/Odor/Foaming : None
Color : Slight Blurred

CONCLUSION
No burning, glare, melting activity has been observed in the relevant materials except for growing dark, and as a result, it has been shown that this liquid can be used effectively against combustion events.

STORAGE : 24 months in original, unopened package, cool and dry environment.
PACKING : 5 lt PE drum, 500 ml. spray
CONSUMPTION : Varies according to application and application surface.

Application Conditions and Risks

Things to consider during and after the application	The application surfaces must be clean and free from dirt, oil, rust etc..
Applicable temperature	Between +5 and +35°C
Application Conditions	Only applied to absorbent surfaces (textile, wood, etc.)

MADE IN TURKEY