

FIREGUARD 501

Intumescent Coating Water Base

Product Data / Application Instructions

- **Fast drying water based thin film intumescent**
- **Rapid drying reduces handling time**
- **Upto 120 minute fire protection of steel from cellulose fires**
- **Meet ASTM E 119, ASTM E 84, ANSI/UL 263**
- **BS 476 Part 20/21 & BS EN 13381 standards**
- **Approved under SASO Standard 2982**
- **High solids, low VOC**
- **Can be overcoated with a wide range of topcoats**

Fireguard 501 is a single component water based intumescent coating used for steel structure I beams, H beams and hollow sections.

Contact your OAL representative for specific recommendations.

Typical Uses

Intumescent fire protection for internal and external structural steel. Fast drying material intended for off-site application using manual airless spray equipment. Allows for rapid job completion, early resistance to mechanical damage and faster output of coated steelwork. Also suitable for on-site application. Fireguard 501 is weather resistant for up to 12 months in normal conditions thereby facilitating the transport, storage and erection phases on construction projects. During these periods running/pooling water, hot humid environments and immersed conditions must be avoided.

Requirements

Please contact your Oasis Ameron representative for latest information relating to local market requirements. For given projects Oasis Ameron can provide customers with loading data and material consumptions stipulated by required fire protection, steel section designation and local requirements. Standard loading tables can be made available where applicable..

Application data summary

For complete information on procedures, equipment and safety precautions, see the application instruction as accompanying shipment. Like all high-performance coatings Fireguard 501 must be applied as recommend to obtain the maximum performance.

Physical Data

Finish Matt

Colour White

Substrate Steel

Components..... 1

Curing Mechanism..... Drying by evaporation

Dry Film thickness 300 - 700 microns in single coat

Thickness requirement In order to establish the dry film thickness required to give the specified fire resistance reference should be made to the products Hp/A or limiting temperature tables. Contact your Oasis Ameron representative for full details.

Volume solids..... 73 ± 3% (ASTM-D2697)

Theoretical coverage 1.46 M²/L
at 500 microns dft
Allow for application losses, surface irregularities, etc.

Application methods..... Airless spray, or roller

Pot life at 30°C Not Applicable

Drying time at 30°C
Touch dry 2 hours
Hard dry..... 4 hours
Fully Cured..... 4 days

Drying times are dependent on temperature and film thickness.

Thinner..... water
Cleaner water

Flash points(Closed cup)..... Not Applicable

FIREGUARD 501

Surface Preparation

Coatings performance in general, is proportional to the degree of surface preparation. Abrasive blasting is usually the most effective and economical method.

Apply over a blasted and suitably primed steel substrate. The surface must be dry and free of dust, salts, grease and other contaminants. The primer used should be applied in accordance with the specific technical data sheet instructions, and must be approved by Oasis Ameron to ensure compatibility with the Fireguard 501. The total dry film thickness of primer coats should generally not exceed 150 microns. For epoxy primers the maximum allowable dry film thickness may be extended, consult your Oasis Ameron representative prior to intumescent application.

Can be applied on suitable epoxy primers
Can be overcoated with itself.
Can be top coated with polyurethane topcoat

Application Equipment

The following equipment is listed as a partial guide and suitable equipment from other manufacturers may be used. Adjustments of pressure and change of tip size may be needed to achieve the proper spray characteristics.

AIRLESS SPRAY - Standard airless spray equipment, with a 0.017 inch fluid tip or larger.

CONVENTIONAL SPRAY - Industrial equipment , having separate air and fluid pressure regulators, mechanical pot agitator and a moisture and oil trap in the main air supply line are recommended.

BRUSH/ROLLER – For touch up & smaller areas, apply evenly, using a clean well- loaded brush or roller. Ensure the coating is not brushed or rolled out too far. Application by brush or roller will provide approx. 100 microns dft. in a single coat application.

MIXING - Use power mixer powered by an air motor or an explosion proof electric motor.

Application Data

Substrate..... Steel

Application methods... Airless Spray

Environmental Conditions (during application and drying)

- a. Air and substrate temperature 4°C up to 40°C
- b. Maximum environmental humidity 85%.

Surface temperature must be at least 3°C/5°F above dew point to prevent moisture condensation on the surface. Never apply coatings under adverse environmental conditions. Ensure good ventilation when applied in confined areas to assist evaporation and elimination of solvents.

NOTE: drying times are dependent on air and surface temperature, applied film thickness, ventilation and other environmental conditions. Times are proportionally shorter at higher temperature and longer at lower temperatures. Prior to recoating ensure the surface is clean.

Maximum recoating time intervals are dependent on temperature, degree of weathering and service conditions of the complete coating system. Consult your OAL representative for specific recommendations.

FIREGUARD 501

Application Procedure

FIREGUARD 501 is a one component product and packaged in 16 liters plastic pails.

1. Flush equipment with recommended cleaner before use.
2. Stir to an even consistency with a power mixer, continue stirring until homogeneous.
3. For conventional spray, thin only as needed for workability with no more than 10 vol % of water. Thinning is normally not needed for airless spray.
4. Apply a wet coat in even parallel passes. Overlap each pass 50% to avoid bare areas, pinholes or holidays. Give special attention to corners, welds, rough areas, edges.
5. Normal recommended dry film thickness per coat is 500 µm. Maximum dft per coat should not exceed 700 µm per coat.
6. The application of 685µm wet film thickness will normally provide 500 µm of dry film thickness.
7. Check thickness of dry coating with a nondestructive dry film thickness gauge such as Mikrotest or Elcometer. If less than specified thickness, apply additional material as needed.
8. Small damaged or bare areas and random pinholes or holidays can be touched up by brush.
9. Clean all equipment with recommended cleaner immediately after use or at least at the end of each working day or shift. When left in spray equipment, it can be dried and can cause clogging.

Shipping Data

Packaging

FIREGUARD 501 16 Ltrs

Shipping weight..... 22 Kgs approx.

Storage out of sun light.

Shelf life 1 year from shipment date when stored indoors in unopened, original containers at 5 to 40°C.

Safety Instructions

1. Ventilate work area.
2. Check to ensure that fire or explosion risks are eliminated.
3. Cover all cuts or wounds.
4. Avoid inhaling or ingesting product. (Use mask and goggles for all spray applications).
5. Cover skin as much as possible.
6. Wash hands regularly. Use suitable soft soap.
7. Protect eyes. If product gets into eyes wash out with water until clear. Seek medical assistance.
8. In the event of accidental ingestion seek immediate medical assistance.
9. Take extra care when using airless spray equipment to avoid accidental injury.

FIREGUARD 501

Caution

Keep container closed. Use with adequate ventilation. Avoid prolonged and repeated contact with skin. If used in confined areas, observe the following precautions to prevent hazards of fire or explosion or damage to health:

1. circulate adequate fresh air continuously during application and drying;
2. use fresh air masks and explosion proof equipment;
3. prohibit all flames, sparks, welding and smoking.

Do not empty into drains. Take precautionary measures against static discharges. For specific information on hazardous ingredients, required ventilation, possible consequences of contact, exposure and safety measures see Safety Data Sheet.

Safety

Since improper use and handling can be hazardous to health and cause of fire or explosion, safety precautions included with Product Data/Application Instruction and Material Safety Data Sheet must be observed during all storage, handling, use and drying periods.

Warranty

OAL warrants its products to be free from defects in material and workmanship. OAL's sole obligations and Buyer's exclusive remedy in connection with the products shall be limited, at OAL's option, to either replacement of products not conforming this warranty or credit to Buyer's account in the invoiced amount of the non-conforming products. Any claim under this warranty must be made by Buyer to OAL in writing within five (5) days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shelf life, or one year from the delivery date, whichever is earlier. Buyer's failure to notify OAL of such non-conformance as required herein shall bar Buyer from recovery under this

warranty.

OAL makes no other warranties concerning the product. No other warranties, whether express, implied or statutory, such as warranties of merchantability or fitness particular purpose, shall apply. In no event shall OAL be liable for consequential or incidental damages.

Any recommendations or suggestion relating to the use of the products made by OAL, whether in its technical literature, or response to specific enquiry, or otherwise, is based on data believed to be reliable; however, the products and information are intended for use by Buyer's having requisite skill and know-how in the industry, and therefore it is Buyer to satisfy itself of the suitability of the products for its own particular use and it shall be deemed that Buyer has done so, as its sole discretion and risk. Variation in environment, changes in procedures of use, or extrapolation of data may cause unsatisfactory results.

Limitation of Liability

OAL's liability on any claim of any kind, including claims based upon OAL's negligence or strict liability, for any loss or damage arising out of, connected with, or resulting from the use of the products, shall in no case exceed the purchase price allocable to the products or part thereof which give rise to the claim. In no event shall OAL be liable for consequential or incidental damages.

Due to OAL's policy of continuous product improvement, the information contained in this Product Data/Application Instructions sheet is subject to change without notice. It is the Buyer's responsibility to check that this issue is current prior to using the product. For the most up-to-date Product Data/Application Instructions always refer to the OAL Protective & Marine Coatings website at www.oasisameron.com

To avoid any confusion that may arise through translation into other languages, the English version of the Product Data/Application Instructions will be the governing literature and must be referred to in case of deviations with product literature in other languages.

Condition of Sale

All our transactions are subject to our Terms and Conditions of Sale.

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