NESTAAN
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PRODUCT SHEET

SPRAYED LIMPET VERMICULITE
SLV External

1. DESCRIPTION

Sprayed Limpet Vermiculite (SLV) is a tough, hard, highly stable, passive fire protection coating applied to steel and concrete by spraying. SLV consists of a factory produced blend of exfoliated vermiculite, cementitious binders and additives supplied as a dry mix to which clean water is added on site. It does not rely on any form of expansion, foaming or chemical reaction to impart its fire protection properties. The product has a very good adhesion and is easy in maintenance.

SLV External Grade is a coating for external use, resistant to a variety of climatic and industrial conditions.

The product is asbestos free, does not contain gypsum and has an off grey colour.

2. APPLICATION

SLV External is designed for installation by spray techniques. It should only be installed by trained applicators of an experienced specialist contractor operating in accordance with the Nestaan - Thermica SLV Application Manual. Easy, quick and seamless application even on curved surfaces.

SLV External can be applied on construction elements, steel and concrete, in tunnels, on structures and vessels in oil, gas, power and petrochemical industries.

Where thicknesses beyond 30mm are required, the material must be applied in two coats, mesh reinforcement is sometimes needed.

Steel :
The surface of the steel should be dry and free of dirt, oil, loose mill scale, flaking paint and loose rust. If required, existing painted surfaces should be treated with a coating of Limpet Primer.

Concrete :
The surface of the concrete should be dry and free of dirt, dust and oil. No curing agents or release oil residue should remain behind on concrete before application of the fire protection SLV External. Concrete surfaces will be protected from spalling when sprayed with SLV External

Temperature limitation :
As cementitious vermiculite sprays can be damaged by frost for up to 24 hours after application, spraying should not take place at temperatures below 5°C or when such low temperatures are expected.

In case of temperatures exceeding 45 °C, spraying is not advisable either.

3. VOLUME WEIGHT

Nominal average dry Volume Weight: 720 kg/m³ + 10%
(ITB AT-15-5957/2011)

4. THEORETICAL COVERAGE

Nominal theoretical coverage at 25mm thick : +/- 62 m²/ ton

5. THERMAL CONDUCTIVITY

When tested in accordance with BS874 , at a mean temperature of 10°C, a thermal conductivity of 0,15 W/mK was obtained

6. STANDARDS

All applications must be carried out in accordance with the current issue of the Nestaan-Thermica SLV System Manual and should follow the guidance found in BS 8202: Part 1 , Code of practice for the selection and installation of sprayed mineral coatings.

SLV External has a determined R-value of 0.32 according to BS 6853: 1999 Annex B4.2 on the weighed summation of toxic fume index.

7. FINISHING

When sprayed, SLV External has an attractive textured surface. Under very special conditions, for permanent external use or very frequent wash down , a water repellent treatment and/or a protective or decorative paint coating can be required.

Manual application by trowel is also possible for small repairs: please refer to the SLV Application Manual.

8. PACKAGING, STOCKAGE AND SHELF LIFE

SLV External is supplied in white PE bags of 20 kilo.
63 bags/pallet. Heat Treated pallets with ISPM mark
of 1,20 x 1 m Pallets are wrapped with stretch foil

Storage : store inside in a dry place, pallets are not stackable (compression of material)
Shelf life : maximum 12 months after production.

9. FIRE PERFORMANCE

As applied, SLV External is rated 'A1':"Non-combustible" to EN13501p1 and BS476p4 and complies with the performance requirements of "Class 0" as defined in Building Regulations, it does not contribute to smoke generation .

SLV External has been fully tested on structural steel beams and columns for up to 4 hours fire resistance in accordance with EN13381p4:2013 and BS476p21:1987, up to 3 hours fire resistance on concrete according to the RWS:2008 Standard and up to 6 hours fire resistance to BS476p21:1987 in Hydrocarbon curve. The product is also certified to UL1709 for application in hydrocarbon environment and to ASTM-E119 in cellulosic environment.

The thickness of fire protection material required for a given period of fire resistance dependents upon the surface area of the steel member exposed to fire and its equivalent cross sectional area, that is, the Hp/A (A/V) value for the section.

For thickness tables, please refer to the specific fire testing standards and test reports.

Available fire tests according to : ASTM, BS, EN, RWS, UL.

10. TECHNICAL ADVICE

A technical advisory service is available to discuss any potential application of our products.
Please contact +32(0)69 77 83 20 Nestaan NV in Belgium.

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Versie 03.04.2024