SiMP-Seal 25 HM

One-part SiMP high modulus construction sealant

DESCRIPTION

SiMP-Seal 25 HM is a one-component, gun-grade, non-sag SiMP - Silyl Modified Polymer high modulus construction sealant. It cures under the influence of atmospheric moisture to form a high-performance compound with permanent elasticity and high resistance to ageing and weathering. Solvent- and isocyanate-free.

Certified according to:
EN 15651-1/3/4 TYPE F INT-EXT/ XS3/ PW EXT-INT CC
ISEGA EC Regulation 1935/2004 for food contact
EMICODE EC1^{PLUS} protocol
EUROFINS IAC GOLD protocol
VOC Emission class label A+

Compliant to:
ISO 11600 Type F Class 20 sub-class HM
LEED iEQc 4.1; SCAQMD Rule 1168; BAAQMD Reg 8 Rule 51

AREAS OF APPLICATION

SiMP-Seal 25 HM is a versatile and performant construction sealant for expansion and construction joints in vertical and horizontal applications, sealing and bonding between different materials, external walling and cladding joints. Suitable for metal roof and gutter sealing, bridge and balcony parapets, weatherproofing of joints between brickwork, blockwork, masonry, wood, concrete, metal, window or door frames.

FEATURES

- Environmentally friendly – Free of isocyanates and solvents
- No hazard symbol required
- No bubble formation - Odorless
- Bonds and seals at the same time
- Permanently elastic; accommodates joint movement of ±20%
- Easy to gun with excellent tooling consistency
- Exceptional thixotropy, non-sagging, short cut off string
- Excellent primerless adhesion on all typical construction and industrial materials

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- Non-staining on concrete and porous materials
- Excellent resistance to ageing, weathering
- Over-paintable with many water and solvent based paints (preliminary tests recommended)

TECHNICAL DATA

Appearance	Non-sag thixotropic paste
Color	White, Grey, Black. Special colors on request
Chemical nature	SiMP Silyl-Modified Polymer
Curing Mechanism	Moisture-curing
Curing through volume [mm] (NPT Method 07) (24h - 23°C and 50% RH)	ca. 2.0
Hardness Shore A (DIN 53505)	ca. 28
Density [g/cm³] (NPT method 06) (23°C and 50% RH)	ca. 1.51
Skin time [min] (NPT Method 17) (23°C and 50% RH)	ca. 50
Elastic modulus at 100% [N/mm²] (ISO 37 DIN 53504)	ca. 0.6
Tensile strength [N/mm²] (ISO 37 DIN 53504)	ca. 1.6
Elongation at break [%] (ISO 37 DIN 53504)	ca. 460
Joint movement capability (EN 15651/1; ISO 11600)	±20 % of joint width
Application temperature [°C]	From +5 to +40
Temperature Resistance [°C]	From -40 to +100, up to +120 for short term

APPLICATION

The surfaces to be treated should be perfectly clean, dry and free from dust and grease. SiMP-Seal 25 HM has very good adhesion properties without the use of primer on most common building materials. Consequently, the use of the primer is not necessary if the support to be sealed is properly prepared and consolidated. However, varieties of brick, natural stone, plastics, paints, coatings and other treatments of surfaces often presents a difficult surface to which to adhere. Due to the number of unpredictable natures of these substrates, a preliminary test is recommended. Pre-cast panels using form-release agents other than polyethylene film must be sandblasted or mechanically abraded and dust free.

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Recommended application temperatures: 15°-25°C. For easier use or cold weather application we recommend the material to be stored at approximately 25°C prior to use. To guarantee free movement of sealant in joints, it is imperative that the sealant does not adhere to the bottom of the joint, therefore for correct joint making a closed-cell polyethylene bead (joint backing rod) is to be placed at the proper depth.
If necessary, apply appropriate primer to joint sides and observe waiting time to avoid that trapped solvent, in condition of rising temperature, can blow bubbles in the uncured sealant. For best performance, sealant should be gunned into joint when the joint slot is at mid-point of its designed expansion and contraction. Firmly extrude sealant into the joint making sure that it is in full contact with the sides of the joint and with the backing rod at the bottom. Keep the nozzle in the sealant, continue with a steady flow of sealant following the nozzle to avoid air entrapment. Avoid overlapping of sealant to eliminate entrapment of air.
Tooling and finishing must be carried out within the tack-free time of the sealant. SiMP-Seal 25 HM can be over-painted. The paint must be tested for compatibility by carrying out preliminary trials. Attention must be observed with the use of alcohol or alkyd-resin since they may interfere with the curing process of the sealant and reduce the drying time of the paint itself. The hardness and film thickness of the paint may impair the elasticity of the sealant and lead to cracking of the paint film. Do not cure in the presence of curing silicone sealants. Avoid contact with solvent cleaners during cure. When applying sealant, avoid air-entrapment. Since system is moisture-cured, permit sufficient exposure to air.

CLEANING OF EQUIPMENT AND PERSONAL PROTECTIVE MEASURES

Clean the tools used with acetone or solvent. When the adhesive has not yet hardened, it can be removed using paper or a cloth. Once hardened, the product can only be removed mechanically. Avoid skin contact by using latex, rubber or polyethylene gloves. If it comes in contact with the skin, remove immediately and wash with soap and water.

PACKAGING

PE cartridge 290ml – 12 pieces per box
Foilpack 600ml – 20 pieces per box

STORAGE AND SHELF LIFE

SiMP-Seal 25 HM can be stored for 12 months in its original packaging (unopened container) between 10°C and 25°C in a cool, dry place. The storage temperature should not exceed 25°C for extended periods of time. Keep away from wet areas, direct sunlight and heat sources.

GENERAL INFORMATION

The information contained in this technical data sheet is to the best of our knowledge correct, being based on our knowledge and experience to date and cannot be used as a guarantee, due to the various different materials present on the market and the fact that the application conditions are not under our direct control and supervision. NPT srl, however, guarantees constant product quality. NPT srl, has the right to modify or up-date this technical data sheet according to requirements. Customers are kindly requested to verify that they are in possession of the latest version.

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ALWAYS CONSULT THE MATERIAL SAFETY DATA SHEET BEFORE USING THE PRODUCT

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