



Technical Data Sheet SiMP-Seal 650
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SiMP-Seal 650

**Multipurpose one-part SiMP elastic adhesive and sealant.
Completely odourless and very low emissions**



DESCRIPTION

SiMP-Seal 650 is a multipurpose one-component, gun-grade, non-sagging SiMP – Silyl Modified Polymer elastic adhesive and sealant with very low emission and completely odorless. It cures under the influence of atmospheric moisture to form a high performance, permanently flexible elastic adhesive. Solvent- and isocyanate-free, it has 0 VOC and no shrinkage.

Certified according to:

EMICODE EC 1^{PLUS} protocol
EUROFINS IAC GOLD protocol
VOC Emission class label A+

Compliant to:

LEED iEQc 4.1; SCAQMD Rule 1168; BAAQMD Reg 8 Rule 51
CARB VOC levels regulation

AREAS OF APPLICATION

SiMP-Seal 650 is a high quality and versatile elastic adhesive and sealant for use in elastic bonding and sealing applications in industrial assembly, automotive, transportation (coach, caravan, refrigerated vehicles, containers), marine, air conditioning and ventilation, where a tough flexible rubber joint or a powerful elastic adhesive is required with no smell during process and working life. Ideal for short time high temperature (180°C) coating in industrial processes. Approved and homologated for bonding on FENIX® material.

FEATURES

- SiMP Silyl-Modified Polymer
- Solvent and isocyanate free. No Hazard symbol required
- Emicode EC1 certified with very low emission, thanks to its specific formulation
- Completely odorless
- Excellent resistance to ageing and weathering.
- Completely color stable
- White color as pure and non-yellowish
- Outstanding thixotropy, non-sagging, short cut-off string

- Permanently flexible over a wide range of temperatures
- No bubble formation
- Easy to gun with excellent tooling consistency
- Excellent primerless adhesion on all typical construction and industrial materials and substrates
- Neutral behavior, does not attack support surface
- Over-paintable with many water and solvent based paints (preliminary tests recommended)
- Short time resistant up to +180 °C for powder and thermal coating

TECHNICAL DATA

Appearance	Non-sag thixotropic paste
Color	White, Grey, Black. Other 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. 2.7
Hardness Shore A (DIN 53505)	ca. 55
Density [g/cm ³] (NPT method 06) (23°C and 50% RH)	ca. 1.49
Skin time [min] (NPT Method 17) (23°C and 50% RH)	ca. 20
Elastic modulus at 100% [N/mm ²] (ISO 37 DIN 53504)	ca. 1.5
Tensile strength [N/mm ²] (ISO 37 DIN 53504)	ca. 2.8
Elongation at break [%] (ISO 37 DIN 53504)	ca. 350
Application temperature [°C]	From +5 to +40
Temperature Resistance [°C]	From -40 to +100, up to +180 for short term

APPLICATION

The surfaces to be treated should be perfectly clean, dry and free from dust and grease. It is necessary to treat the bonding surface according to NPT application guidelines, eventually using a specific CLEANER or ACTIVATOR from NPT range. It is advisable to carry out preliminary adhesion tests on the support.

Apply the plastic nozzle and cut it at an angle according to the desired bead thickness and profile. Fit the foilpack or cartridge into a manual or pneumatic air operated gun (provided with telescopic piston) and extrude



the adhesive/sealant carefully preventing air entrapment. Once opened, packs should be used up within a relatively short time. The optimum operating temperature for both substrate and sealant is between 15°C and 25°C.

Tooling and finishing must be carried out within the tack-free time of the sealant. SiMP-Seal 650 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. It should be understood that 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. Bonded elements may require additional holding or support during curing period.

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 400ml – 12 pieces per box

Foilpack 600ml – 20 pieces per box

STORAGE AND SHELF LIFE

SiMP-Seal 650 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.

ALWAYS CONSULT THE MATERIAL SAFETY DATA SHEET BEFORE USING THE PRODUCT