

SILICONE FOR CONCRETE

Sealant in cartridge

DESCRIPTION

Isoplam® Concrete Silicone is a low-elastic, solvent-free and odourless hygroindurent silicone sealant, ideal for sealing cuts and joints on pedestrian pavements in Deco Nuvolato, Skyconcrete®, Microverlay® low thickness concrete, Pavilux® Isoplam®...
It can be used both indoors and outdoors.
The thixotropicity of its paste allows it to be used both horizontally and vertically without producing leaks.

FIELDS OF EMPLOYMENT

Isoplam® Concrete Silicone can be used as a sealant in various applications and adheres well to:

- concrete, plaster, fibercement floors or cladding;
- stone materials (marble, stone, granite...);
- prefabricated panels, windows and walls, pipes and vertical walls, as well as cladding elements of the same or different nature;
- non-absorbent supports such as: metals (aluminum, iron, galvanized sheet, stainless steel...), glass, ceramics, clinker, painted wood, enamelled or varnished surfaces and on some types of plastic.

Do not use on oily surfaces such as bituminous or rubber.
Do not use the product for sealing pools; not suitable for joints subject to a hydrostatic thrust or water pressure action; not suitable for permanent immersion in water.

ADVANTAGES

Isoplam® Concrete Silicone presents the following advantages:

- is single-component in cartridge, ready to use and easy to apply;
- is solvent-free and odourless;
- does not emit halos over time;
- is unalterable over time;
- delays the formation of mould on the surface;
- resistant to the most common chemical agents;
- has excellent adhesion to many building materials;
- has high thixotropy;
- has a high elasticity;
- when applied, it resists temperatures between -40°C and +150°C.

USAGE

Surface preparation

The width of the joint must be correctly evaluated, so that the expected elongation of the silicone does not exceed 25% of the initial width.
The walls of the concrete, plaster or cement mortar joint must be clean and dry, homogeneous and free from traces of oil, grease or dirt. Any detaching parts and traces of milk crust must be removed.
Isoplam® Concrete Silicone firmly adheres to multiple types of substrates, if properly cleaned and sanitized. For optimum adhesion and high performance even in critical conditions, such as when a particularly long service life of the building is required, very high stresses act or extreme exposure to weather, it is necessary to treat the joint with cleaners and primers. When in doubt, first apply the product to a test area.

Both the temperature of the substrate and the ambient temperature must be between +5°C and +40°C.
Apply the polyethylene cord Filtene Isoplam® in the joint, to prevent the Silicone from sticking to the bottom of the joint and to adjust the filling depth of the Silicone.
Tape the edges of the joint with Isocolor® Paper Tape to prevent the support from getting dirty.

Application

Cut the tip of the cartridge, screw the nozzle on it and cut it to 45° according to the width of the joint to be filled. Insert the cartridge into the gun.
Extrude the Silicone in the joint, avoiding air and applying the product against the sides of the joint, working it if necessary to ensure good adhesion.
Before the Silicone grates, finish the joint with tools wet with water and soap to get a smooth surface.
Remove the paper tape before the silicone grating.

Clean all equipment immediately after use with solvents such as butyl acetate, petrol or tuluol. The cross-linked product can only be removed mechanically.

Notes:

Elastic sealants should not normally be overpainted because paints, which are generally characterised by a movement capacity that is also considerably lower than that of elastic sealants, could crack during the working movement of the joints. In any case, compatible paints may cover the edges of the seal for no more than 1 mm. The compatibility of the paint must be tested beforehand. Exposure to chemicals or UV rays can cause colour variations in the product. Such color variations, however, do not compromise the performance or durability of the product.

Silicone may hydrophobize the edge of the joint: when the floor surface is wet, a different coloring effect on the edge of the joint may be noticed (this does not affect the functionality of the Silicone).

CONSUMPTION

The approximate yield of Silicone for Concrete Isoplam® as floor joint sealant is:

Joint width	5 mm	10 mm	15 mm	20 mm	25 mm
Depth to fill	5 mm	10 mm	15 mm	17 mm	20 mm
Yield in mt with a 310 ml cartridge	ca 6 m	ca 3 m	ca 1,5 m	ca 0,9 m	ca 0,6 m

TECHNICAL SPECIFICATIONS

Conforms to standards	– DIN 18545-2 class E – DIN 18540 – ISO 11600-F class 25 LM – ISO 11600-G class 25 LM – ASTM C 920 class 25 – TT-S-00230 C class A – TT-S-001543 A class A – ASTM C 1248 – BS 5889 type A
PRODUCT IDENTIFICATION DATA	
Classification according to EN 15651-1:	F-EXT-INT-CC
Classification according to EN 15651-2:	G-CC
Classification according to EN 15651-3:	XS1
Classification according to EN 15651-4:	PW-EXT-INT-CC
Consistency	Tixotropic paste

Density ISO 1183 Met. B (g/cm 3):	1,02
Solid residue (%):	100
EMICODE:	EC1 Plus – with very low emission
<i>APPLICATION DATA (at +23°C - 50% U.R.)</i>	
Permissible application temperature:	da +5°C a +40°C
Extrusion speed from nozzle 3.5 mm at 0.5 pressure MPa (ml/min.):	50-70
Time until the formation of skin	15 minutes
Speed of cross-linking from outside to inside (mm): – 1 g: – 7 gg:	4 10
<i>FINAL PERFORMANCES</i>	
Tensile strength according to ISO 8339 (N/mm²):	0,5
Elongation at break according to ISO 8339 (%):	250
Tear resistance (ISO 34) (N/mm²):	4
Shore A Strenght (DIN 53505):	21
Elongation module measured to ISO 8339 Method A at 100% elongation (N/mm 2):	0,35
Maximum exercise movement (%):	25
Resistance: to water to ageing to atmospheric agents to chemical agents, diluted acids and alkalis to soap and detergents to solvents at the temperature	excellent excellent excellent good excellent limied from -40°C to +150°C

PACKAGING AND COLORS

Silicone for Concrete Isoplam® is supplied in 310 ml cartridges in black, manhattan grey, anthracite, beige, medium grey and brown.

SAFETY AND STORAGE

The Isoplam® Concrete Silicone must be stored in a dry place and protected from direct sunlight, at a temperature between +10°C and +25°C. If stored in a cool and dry place in the original cartridges, it has a shelf life of 18 months.

The product is intended for professional use only. Consult the safety data sheet before use.



IMPORTANT

The product **SILICONE FOR CONCRETE** is formulated to be used as in the above application. The addition of any other product compromises the final result of the surface.

All information in this sheet is based on best practice and laboratory experience. It is the customer's responsibility to check that the product is suitable for the intended use. The manufacturer is not responsible for the results of incorrect applications. It is recommended to always test on small surfaces before application. The data can be changed at any time. This form replaces and supersedes the previous forms.

The product **SILICONE FOR CONCRETE** is intended for professional use. Isoplam Srl regularly organizes workshops for its customers who request them.