Technical Documentation

SEAL-IT® 471 PU-FOAM FLEX

Product

Seal-it® 471 PU-FOAM FLEX is a highly flexible, airtight and highly insulating 1k insulation and installation foam, specially designed for flexible and airtight sealing and filling of joints, adjustment and installation spaces, seams and connections between various building components, and that moisture-cures into a durable foam that retains its flexibility.

Applications

- Specially developed as a flexible insulation and installation foam, with a high thermal insulation value, to apply a perfect vapour-tight and airtight seal for air leaks between building components in building and home structures.
- Flexible and airtight sealing of expansion joints, connections, seams, cracks and holes, such as between/along interior and exterior façades, cavity walls, partitions and ceiling, roof and floor components.
- Seal and fill adjustment and installation spaces between, along and around structural and façade components, such as prefab wooden and concrete parts, aluminium, steel, wood and plastic sections and door and window frames.
- Sealing and filling of penetrations in interior and exterior walls and in façades, floors and roofs.
- Adhere and seal insulation panels/boards and panel materials together in the construction of façades, floors, roofs and interior and exterior walls.
- Seal connections in ridges, dormers, chimneys, air exhaust ducts and bay windows.
- Fill, seal and insulate hollow spaces/holes in roofs, floors, façades, ceilings and interior and exterior walls.

Properties

- Flexible quality, excellent movement absorption.
- Vapour-tight and airtight, perfect sealing of air leaks, stops unnecessary energy loss.
- High thermal and acoustic insulation values, achieves savings, reduces heat loss and noise transfer.
- Excellent adhesion to stone, stucco, plasterwork, masonry, concrete, gypsum, metal, wood and many plastics, such as Styropor (polystyrene), hard PU foam, polyester, hard PVC and composite.
- High output, approx. 45 litres at free expansion.
- Versatile: insulates, fills, seals, adheres and installs.
- Very low emission: certified VOC emission class A+.
- Fast-curing, fine-celled, easy to work with and cuttable polyurethane foam.
- Foams during the curing process, high filling capacity.
- Durable resistance to weather, water, moisture and ageing.
- Excellent resistance to hot and cold, water and many chemicals.
- Can be repainted and finished with sealant/plaster after complete curing.
- Preparation for BENG construction in combination with membrane Seal-it® 331 Hybri-Coat.

Connect Products
T: +31 (0)347 341 916
Duurzaamheidsring 220
F: +31 (0)347 341 645
4231 EX Meerkerk (NL)
E: info@connectproducts.nl

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Standard product line

Colour	12 x 750ml canister
Crème	SI-471-0000-750

Other packaging available on request.

Technical product data

Material type		Polyurethane
Components		1K
Type		Flexible
Curing		Moisture curing
Density		20-25 kg/m³
Skin formation	FEICA TM 1014	+23°C, 50% RH
Cuttable	FEICA TM 1005	20-40 min, +23°C, 50% RH
Fully loadable		<8 h (joint 8 x 5 cm)
Yield per canister	FEICA TM 1003	45 litres at free expansion
Tensile strength	FEICA TM1018	>55kPa
Stretch at breaking point (dry)	FEICA TM 1018	27% (dry surfaces)
Stretch at breaking point (Moist)	FEICA TM 1018	20% (Moist surfaces)
Shear strength	FEICA TM 1012	>30 kPa
Deformation (MTV)	FEICA TM 1013	25%
Acoustic insulation	EN ISO 140-1	60 dB - RST,W (AND ISO 10140)
Airtightness	BRL2804 - 4.2.2	<0.1 m3/[h·m (daPa) 2/3] @1050Pa
Compressive strength 10%	FEICA TM 1011	9 kPa
Heat conductivity coefficient	FEICA TM1020	30-35 W/m²K (DIN 52612)
Fire class	DIN 4102-1	B2
Temperature resistance		-50°C to +90°C (Cured)
Application temperature		-5°C to +40°C
Max. storage temperature		+5°C to +25°C
Shelf life		15 months
Curing strength	FEICA TM 1009	<0.7 kPa (moist surfaces)
Expansion	FEICA TM 1010	<60 %
Deformation	FEICA TM 1004	<1 %
Pressure strength	FEICA TM 1011	>3 kPa (moist surfaces)
Water vapour permeability	EN 12086	0.086 mg/(m·h·Pa)
Foam yield	WGM107	15 m (in joint 3x5 cm)
Propellent gas		(H)CFC-free

Shelf life

In unopened original packaging, stored in a cool dry place with canister upright, between +5°C and +25°C, the product will last up to 15 months after the production date.

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Application conditions

- Application temperature (ambient and surface) between -5°C and +40°C.
- On compatible, stable, clean, uncontaminated and grease-free surfaces.
- Use a suitable brush to remove any loose particles from the surface.
- Degrease the surface properly using Seal-it® 510 CLEANER.
- Give the canister approx. 20 good shakes before use.
- If necessary, use a plant sprayer to lightly moisten the surface in advance.
- Cut off fully cured excess Seal-it® 471 PU-FOAM FLEX with a knife and/or trowel.
- Before use, grease the threading of the gun adapter with Vaseline, PTFE and/or silicone spray, to prevent the canister sticking to the PU gun.
- After securing the canister in the gun, the spray speed and output volume are adjustable using the setscrew on the back of the gun for efficient/economic use.
- When not in use, tighten the setscrew on the back of the PU gun until it is closed so the PU gun can no longer be activated.
- Always leave the canister in the PUR gun until it is completely empty.
- Remove the empty canister by holding in the trigger while unscrewing it in order to expel any remaining propellent gas.
- Next, reload the PU gun with a full canister and/or clean the PUR gun thoroughly using Seal-it® 450 PUR CLEANER.
- If the PUR gun is not working or not working properly, put Seal-it® 450 PUR CLEANER on the gun, spray through several times and let it set well for approx. 15 min. Spray through again and then remove the Seal-it® 450 PUR CLEANER canister.

Temperature resistance

- -40°C to +90°C continuous
- -40°C to +130°C intermittent

Limitations & recommendations

Not suitable for underwater applications and filling of large enclosed spaces/holes lacking adequate humidity. Instead, use 2K PU FOAM for this. Apply joints wider and/or deeper than 4 cm in multiple coats. Wait approx.15-30 minutes between application of each new coat and lightly pre-moisten the surface each time, depending on the humidity at that time. Not suitable for PE, PP, PC, PMMA, PTFE, silicone, soft plastic, neoprene or bituminous surfaces. Not UV-resistant. Use a cover film to protect surrounding surfaces from spilled foam. We recommend testing adhesion and material compatibility in advance.

Cleaning

Fresh/uncured spillage. Protect floors, furniture and other surfaces from spillage using cover film. Use Seal-it® 450 PUR CLEANER to remove fresh/uncured spillage from surfaces and tools immediately. Clean hands/skin with Seal-it® 515 ULTRA-WIPES. Once cured, Seal-it® 471 PU-FOAM FLEX must be removed mechanically.

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Health & safety

Avoid long-term contact with skin. If uncured material gets in your eyes, rinse out thoroughly with plenty of water and consult a physician. Wear safety goggles, gloves and suitable work attire. Only process in well ventilated spaces. Do not smoke or use the product in the vicinity of an open flame. Store Seal-it® 471 PU-FOAM FLEX in a safe place outside of the reach of children. The product safety data sheet is available on request.

Warranty & liability

Connect Products BV guarantees that its product will meet the specifications during its shelf life. Liability shall never exceed that stipulated in our terms and conditions of sale and supply. Under no circumstances shall the seller be held liable for any consequential damages. The information provided is the result of our testing and experience and is general in nature. However, it does not entail any liability. Users are responsible for performing their own tests to determine whether the product is suitable for the application.

Certifications

VOC emission class A+