

REC FLEX-770 FR

FIRE RATED SILICONE JOINT SEALANT

DESCRIPTION

REC FLEX-770 FR is a fire rated, silicone based, 1-component, UV-stable, moisture-curing, low-modulus elastic joint sealant. Suitable for use in hot and tropical climatic conditions.

PRIMARY APPLICATIONS

- **REC FLEX-770 FR** is designed for fire rated movement and connection joints on porous and non-porous substrates.
- It is also suited for use as a weather sealant for movement and connection joints in building envelopes.

FEATURES/BENEFITS

- Up to 4 hours fire resistance according to EN 1366-4
- Very good resistance to weathering
- Movement capability of $\pm 35\%$ (ASTM C 719)
- Easy to smooth and very good workability
- Good adhesion to many different substrates
- Neutral curing

TECHNICAL INFORMATION

Shore A Hardness	~16 (28 d) (ISO 868)
Secant Tensile Modulus	~0.30 N/mm ² at 100 % elongation (23 °C) (ISO 8339) ~0.50 N/mm ² at 100 % elongation (-20 °C)
Elongation at Break	~650 % (ISO 37)
Elastic Recovery	~70 % (ISO 7389)
Tear Propagation Resistance	~4.0 N/mm (ISO 34)
Movement Capability	$\pm 35\%$ (ASTM C 719)
Service Temperature	-40 °C min. / +150 °C max.

JOINT DESIGN

The joint width must be designed to suit the joint movement required and the movement capability of the sealant. The joint width shall be ≥ 10 mm and ≤ 50 mm. The joint depth shall be ≤ 20 mm. A width to depth ratio of 2 : 1 must be maintained (for exceptions, see table below).

Standard joint widths for joints between concrete elements:

(Movement Capability: ± 35 % (ASTM C719) and ΔT : 80 °C)

Joint distance [m]	Min. joint width [mm]	Min. joint depth [mm]
2	10	10
4	12	10
6	18	10
8	22	11
10	28	14

For larger joints following depth should be maintained:

Joint width [mm]	Joint depth [mm]
30	15
35	18
40	20
45	20
50	20

All joints must be correctly designed and dimensioned in accordance with the relevant standards, before their construction. The basis for calculation of the necessary joint widths are the type of structure and its dimensions, the technical values of the adjacent building materials and the joint sealing material, as well as the specific exposure of the building and the joints.

For more detailed advice and instructions please contact our Technical Department.

DIRECTIONS FOR USE

Consumption per 600 mL foil pack

Joint length [m]	Joint width [mm]	Joint depth [mm]
6	10	10
4	15	10
3	20	10
2	25	12
1.3	30	15
1	35	18
0.8	40	20
0.7	45	20
0.6	50	20

Backing Material	Use closed cell, polyethylene foam backing rods.
Sag Flow	2 mm (20 mm profile, 50 °C) (ISO 7390)
Ambient Air Temperature	+5 °C min. / +40 °C max. (min. 3 °C above dew point temperature)
Substrate Temperature	+5 °C min. / +40 °C max.
Curing Rate	~2 mm/24 h (23 °C / 50 % r.h.) (CQP 049-2)
Skin time	~25 min (23 °C / 50 % r.h.) (CQP 019-1)
Tooling Time	~20 min (23 °C / 50 % r.h.) (CQP 019-2)

a. SUBSTRATE PREPARATION

The substrate must be clean, dry, sound and homogeneous, free from oils, grease, dust and loose or friable particles. The following priming and/or pretreatment procedures shall be followed:

b. APPLICATION METHOD / TOOLS

REC FLEX-770 FR is supplied ready to use.

After the necessary substrate preparation, insert a suitable backing rod to the required depth and apply any primer if necessary. Insert a foil pack or cartridge into the sealant gun and extrude **REC FLEX-770 FR** into the joint making sure that it comes into full contact with the sides of the joint and avoids any air entrapment. **REC FLEX-770 FR** must be firmly tooled against the joint sides to ensure adequate adhesion. It is recommended to use masking tape where exact joint lines or neat lines are required. Remove the tape within the skin time.

Do not use tooling products containing solvents.

c. CLEANING OF TOOLS

Clean all tools and application equipment immediately after use with REC Cleaner. Once cured, residual material can only be removed mechanically.

PACKING

REC FLEX-770 FR is packaged 600 mL foil pack, 20 foil packs per box.

SHELF LIFE

REC FLEX-770 FR has a shelf life of 12 months from the date of production, if it is stored in undamaged, original, sealed packaging, and if the storage conditions are met.

STORAGE CONDITIONS:

REC FLEX-770 FR shall be stored in dry conditions, where it is protected from direct sunlight and at temperatures between +5 °C and +25 °C.

LIMITATIONS

- **REC FLEX-770 FR** cannot be overpainted.
- Do not use **REC FLEX-770 FR** on natural stone.
- Do not use **REC FLEX-770 FR** on bituminous substrates, natural rubber or on any building materials which might bleed oils, plasticizers or solvents that could attack the sealant. EPDM rubber needs to be tested for compatibility and approved by Reckon Chemicals Technical Department.
- Do not use **REC FLEX-770 FR** to seal joints in and around swimming pools.
- Do not use **REC FLEX-770 FR** for joints under water pressure or for permanent water immersion.
- Do not expose uncured **REC FLEX-770 FR** to alcohol containing products as this may interfere with the curing reaction.

QUALITY STATEMENT

All our products are manufactured to comply with our internal QA/QC program and quality management system to ensure consistency and quality.

DISCLAIMER

While the company guarantees its products against defective materials, the use and application of these products are made without guarantee since the conditions of their application are beyond its control. It is recommended to verify with the company that the product is suitable for the intended use. This Data Sheet version is the latest one. The company may modify it without any prior notice. Technical characteristics are listed for guidance only. For more information, please contact the company's head office located in Lahore.

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