

# SIR-O-SIL 50

HIGH PERFORMANCE, LOW MODULUS, ONE-COMPONENT, GENERAL PURPOSE,  
SEALANT FOR PROFESSIONAL CAULKING, GLAZING, AND INDUSTRIAL APPLICATIONS

100% NEUTRAL CURE SILICONE



## product description

SIR-O-SIL 50 is a versatile, neutral cure, one component high performance low modulus silicone. SIR-O-SIL 50 reacts with atmospheric moisture to produce a flexible silicone rubber. SIR-O-SIL 50 is ideal for a wide variety of general purpose caulking, glazing, and industrial applications. SIR-O-SIL 50 provides high movement capability as well as excellent weatherability

## basic uses

The low modulus profile and outstanding physical properties of SIR-O-SIL 50 allow for sealing a wide variety of demanding applications:

- Building glazing, and industrial sealing applications
- Perimeter pointing around all types of frames, including PVC building products
- Sealing construction joints in brickwork, concrete, and stone subject to movement up to + or - 50%
- Sealing between precast concrete panels
- Sealing applications for transportation vehicles as well as shipping and storage containers

Capable of taking extension, compression, transverse and longitudinal movement, SIR-O-SIL 50 resists severe environmental conditions such as wind loading, wind driven rain, snow and sleet and is impervious to acid rain, ozone, ultraviolet light and extreme temperature variations. The tenacious adhesion of SIR-O-SIL 50 provides long-term performance required for demanding weatherproofing applications. SIR-O-SIL 50 is recommended for use on both new and renovation applications.

## packaging

SIR-O-SIL 50 is available in 10.1 fl.oz. (299 ml) cartridges, 12 cartridges per case/140 cases per pallet.

## colors

Clear and White

## features

- Non-corrosive curing mechanism
- Excellent Movement capabilities (+/- 50%)
- Excellent gunnability throughout a wide temperature range -35°F to 160°F (-37°C to 71°C)
- Excellent unprimed adhesion to many common substrates
- Long product life expectancy
- Highly resistant to ultraviolet light, ozone, moisture and extreme temperature variations
- Dry tools easily to a smooth, attractive finish
- Good tear resistance
- Rubberlike properties are maintained throughout product life
- Service temperature ranges -65°F to 300°F (-54°C to 149°C)
- Skins quickly
- No special cold storage requirements are necessary

## typical properties

*These values are not intended for use in preparing specifications.*

### As Supplied

Flow, Sag or Slump: Nil

Tack-Free Time at 77°F (25°C), 50% RH, Minutes: 60

Tooling Time, minutes: 20-30

Specific Gravity @ 77°F (25°C): 1.03

### As Cured-After 7 days 77°F (25°C) and 50% RH

Durometer Hardness, Shore A, points: 25

Ultimate Tensile Strength, PSI (MPa): 230 (1.9)

Tear Strength, PLI (kN/m): 25 (4.4)

Peel Strength, PLI (kN/m): 20 (3.5)

Movement Capability, percent: +/- 50

Staining: None

Weathering (10,000 hours in Quv. Weatherometer):

No change in color; remains elastomeric

Shelf life, Months: 12

Extrusion Rate, g/min: 400

## storage

Product shelf life is 12 months under normal storage conditions of 80°F (27°C) or less. No special cold temperature storage provisions are required.

## limitations

- Exterior below grade use
- Continuous water immersion
- Applications over tars, asphalt or materials that bleed oils, plasticizers or solvents
- Marble substrates
- Applications in airtight enclosures as the sealant requires atmospheric moisture to cure
- Horizontal traffic joints
- Not paintable

## application standards

SIR-O-SIL 50 silicone sealant meets or exceeds the test requirements of:

- Federal Specification TT-S-0001543A (COM-NBS) Class A, Type NS, Class A, Use G
- Federal Specification TT-S-00230C (COM-NBS) Type II, Class A, Use G
- ASTM Specification C-920, Type S, Grade NS, Class 25
- ASTM C-834 Type OP, Grade -18° C

## bead configuration for general purpose sealing

SIR-O-SIL 50 silicone sealant should have a ratio of approximately twice the joint width to sealant depth. The sealant depth should be not less than 3/16" (4.8 mm minimum) and not greater than 1/2" (12.7 mm, maximum). See table below.

A. Width	1/4	3/8	1/2	5/8	3/8	7/8	1
B. Depth	3/16	3/16	1/4	3/8	3/8	3/8	1/2
C. Lineal Ft./Gal.	410	275	154	82	69	59	36

## cure rate

7-14 days for full cure.

## application

SIR-O-SIL 50 can easily be applied with conventional hand or air powered caulking equipment. The sealant should be applied in a continuous operation with adequate pressure to fill the joint to the proper depth.

## joint backing bond breaker

Joint backing should be used to control the recommended joint depth and prevent 3-sided adhesion. Joint backing may be open cell polyurethane foam or closed cell polyethylene. Joint backing must be thoroughly dry. Where joint design or depth will prevent the use of joint backing, an approved adhesive backed polyethylene bond breaker tape must be installed to prevent 3-sided adhesion. Do not install more joint backing or bond breaker tape than can be caulked in one day.

## tooling

Dry tool the sealant with light pressure immediately after application to ensure positive and complete contact of the sealant to the joint interface.

## masking

Should masking be required, it is recommended the masking tape be removed immediately after tooling, before the sealant skins. If necessary, the sealant can be installed below freezing provided the surfaces are clean, dry and frost-free. We recommend, however, for best conditions and performance, that the sealant be applied above 40°F (4°C).

## cleaning

Cleaning of equipment and tools can be accomplished with solvents such as xylol, toluol or methyl ethyl ketone (MEK) while sealant is uncured.

## availability

Immediately available from Siroflex distributors strategically located throughout the U.S.

## cost

Cost information is available from your local Siroflex Distributor or by calling our customer service department at 1-800-359-6398.

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