

Tough, pick and abrasion resistant, fast-curing one-component silicone sealant / adhesive for civil and industrial applications

Uses

For bonding or sealing joints between most construction materials, where a high bond strength is required. Fast-curing formulation gives rapid cure with convenience of single component sealant.

- Trafficable floor joints
- Assembly of metal framed buildings
- Cover plates and coverings
- Bolted lap joints
- Prisons, gaols, grand stands

Advantages

- Very fast curing - where quick return to service time is required
- Suitable for use as a sealant or adhesive
- Ideal for wide floor joints
- Pick resistant - suitable for high security establishments and public buildings
- Tough and abrasion resistant
- Weather resistant
- Good adhesion to most construction materials
- Will not stain porous construction materials such as concrete, marble or granite

Description

Construction Silicone HM FC is a one part, gun applied, neutral cure silicone sealant which cures very rapidly to form a durable, weathertight seal. Construction Silicone HM FC remains permanently flexible and weatherproof under a wide range of climatic conditions. The unique polymers utilised in this 'state of the art' sealant combine to provide the outstanding weathering performance, for which silicone sealants are renowned, with no risk of staining porous building materials.

Design criteria

Joint design: Moving joints should be designed and suited to minimise stresses imposed on the joint sealant.

All movement joints should be designed with an optimum width to depth ratio of 2:1 with the overriding requirement that the sealant depth must not be less than 8 mm on non-porous surfaces and not less than 12 mm on porous surfaces. The recommended primer should always be used.

Bond breakers and joint fillers: In moving joints, the sealant must not be allowed to bond to the back face of the

joint. Prevention of 3 sided adhesion is achieved by installing either a polyethylene bond breaker tape, or through the use of a polyethylene foam backing rod.

Properties

Data quoted are typical for this product but do not constitute a specification.

Form:	Non slump thixotropic paste
Colours:	Concrete Grey
Movement accommodation factor:	Plus 25% / minus 25% (50% total)
Typical hardness Shore 'A':	50 + 5 {developed typically in less than 48hrs}
Physical or chemical change:	Chemical cure (non-acid)
100% Modulus: {ASTM D412}	1.0 MPa
Application temperature:	Minimum 5°C
Service temperature:	Minus 50°C - 150°C
Tooling time:	10 minutes minimum @ 25°C, 65%RH
Cure rate:	Approx. 5 mm for 1st day at 25°C, 65% R.H then 2 mm / day thereafter

Application instructions

Preparation

Joint faces must be sound and completely dry, clean and frost free. Oil, grease, curing compounds, form release agents, and all surface contaminants must be completely removed by grinding joint faces or by using Solvent 10.

Construction Silicone HM FC is suitable for use directly onto powder coated metals and ColorBond steel surfaces.

Priming

For optimum results, particularly with moving joints, priming is always recommended.

Primer 9:	PVC and many plastic surfaces
Primer 10:	Concrete, brick and most porous substances
Primer 11:	Metals and most non-porous substrates
Primer 13:	Concrete surfaces subject to water immersion, fibreglass

For other surfaces, or where any doubt exists, test first or contact Parchem Technical Services for advice.

Emer-Seal® Construction Silicone HM FC

Primer drying times:

Primer 9 and 11:	30 minutes
Primer 10:	30 minutes
Primer 13:	30 minutes - 2 hours

Reprime if the sealant is not applied within 8 hours after primer application.

Application

Fit the sausage of Construction Silicone HM FC into a suitable sausage gun (PC 770513), and gun firmly into joint. Ensure sealant is forced well against all joint surfaces to achieve good surface wetting and thus optimum adhesion. Guide nozzle along the joint gradually, applying even pressure to the trigger. The joint must be filled completely at all points.

Tooling

Immediately after application the sealant should be tooled. Use a smooth convex tool to produce both the required surface finish and to assist in further forcing the sealant into good contact with the joint faces. The use of use soapy water as a tooling aid is not recommended as the cure of the sealant may be adversely affected.

Cleaning

Equipment should be cleaned promptly by wiping with Solvent 10, as cured sealant is very difficult to remove. Cured sealant can only be removed by mechanical methods. Soaking the equipment in Solvent 10 makes removal of cured sealant easier.

Limitations

Elastomeric sealants such as Construction Silicone HM FC should not be applied in close proximity to bituminous materials or products containing reclaimed rubber (e.g. some tile adhesives). If any doubt exists, contact Parchem Technical Services.

Important notice

A Safety Data Sheet (SDS) and Technical Data Sheet (TDS) are available from the Parchem website or upon request from the nearest Parchem sales office. Read the SDS and TDS carefully prior to use as application or performance data may change from time to time. In emergency, contact any Poisons Information Centre (phone 13 11 26 within Australia) or a doctor for advice.

Product disclaimer

This Technical Data Sheet (TDS) summarises our best knowledge of the product, including how to use and apply the product based on the information available at the time. You should read this TDS carefully and consider the information in the context of how the product will be used, including in conjunction with any other product and the type of surfaces to, and the manner in which, the product will be applied. Our responsibility for products sold is subject to our standard terms and conditions of sale. Parchem does not accept any liability either directly or indirectly for any losses suffered in connection with the use or application of the product whether or not in accordance with any advice, specification, recommendation or information given by it.

Estimating

Supply

Construction Silicone HM FC:	600 ml sausage
Product Code:	610380
Primer 9, 10 and 11:	250 ml cans
Primer 13:	250 ml packs
Solvent 10:	4 and 20 litre drums

Coverage

Each 600 ml sausage of Construction Silicone HM FC will seal 6 metres of a 10 x 10 mm joint or 3 metres of a 10 x 20 mm joint.

As a guide, a 250 ml tin of primer will be required for every 12 sausages on porous surfaces or for every 50 sausages on non-porous surfaces.

Storage

Shelf life 12 months in unopened containers stored under cool, dry conditions.