CM SFS STAIN FREE HIGH QUALITY SILICONE SEALANT

TECHNICAL DATA SHEET **FEBRUARY 2015**

DESCRIPTION

CMSFS is a one component neutral, moisture cured silicone sealant for building and glazing joints. It cures at room temperature to produce a flexible low modulus elastomeric seal.
CMSFS will adhere without primer to most common building substrates. Once cured it has a movement capability of -/+50% over a wide range of temperatures.

CHARACTERISTICS

CMSFS combines the advantages of a low modulus elastomeric sealant (minimum strain on joint surfaces) with primerless adhesion and neutrality on most construction materials including porous substrates. Its curing characteristics enable easy application and tooling of the product. Mechanical properties and adhesion are not affected by prolonged exposure to sunlight, rain, snow or ozone.
CMSFS can be used on glass, coated glass, vitreous surfaces, metal, painted or unpainted wood, UPVC, polycarbonates, polymethacrylates, ABS, concrete, granite, marble…
CMSFS is a non-staining sealant, however specific trials must be performed on sensitive or porous substrates (marble, stones…)
Cured CMSFS is resistant to diluted bases, salt spray and short term exposure to most common industrial solvents and hydrocarbon based products, in the latter case some reversible swelling and softening will occur. Acids and oxidants can affect CMSFS.

TYPICAL USES

CMSFS has been specifically developed for jointing or bonding in building and glazing applications such as:

- Expansion joints in precast panels and curtain walls
- Perimeter joints around windows or doors
- Glazing joints on aluminium, wood, UPVC…
- Joints on roofs, chimneys
- Venting or gutter joints
- Bonding mirrors

- Kingspan panels

TYPICAL PROPERTIES

Cure system	Alcoxy
Specific gravity, approx.	1.24
Sag, Slump (ISO7390)	1
Skin over time*, min, approx.	12
Tack free time*, h, approx.	2
Cure time*	
mm/1st day, approx.	1
mm/7 days, approx.	5
Application temperature range	+1'C to +40'C
Service Temperature range	-50'C to +150'C
Joint movement capability %	+/- 25%
Hardness (Shore A-ASTM 2240)	
(6mm thick film) approx.	16
Elastic recovery (ISO 7389), %, approx.	90
Mechanical properties (2mm thick film-ASTM D 412)	
Tensile at 100% elongation, Mpa, approx.	0.25 (35 psi)
Tensile strength, Mpa, approx.	1.0 (140 psi)
Elongation at break, %, approx.	500
Mechanical properties on slabs (ISO 8339)	
Tensile at 100% elongation, Mpa, approx.	0.25 (35 psi)
Tensile strength, Mpa, approx.	0.5 (70 psi)
Elongation at break, %, approx.	400
Service life 20 years	

* at 23'C and 50% relative humidity

STANDARDS

CMSFS meets or exceeds the requirements of the following standards:

DIN 18540 (Class F)	BS 5889 (1989) Type A
DIN 18545 (T2, Class E)	TTS 001543A (Class A)
UBATC (Class 6)	TTS 0230C (Class A)
SNJF Elastomere 1re cat (glass, aluminium, concrete)	ASTM C920 (s25)

ANJF DTU39 (glass, aluminium)
Conforms to the requirements of MA 39 (Austria) and NBI (Norway)
ISO 11600-F&G-25LM – Glass, aluminium, concrete (primerless)

APPLICATION PROCEDURE

Joint preparation	The joint faces to be bonded must be clean, dry and free from dust, oil, grease, old sealant and any tracers of contaminant which may affect adhesion. Surfaces should be degreased with solvent using a clean cloth and the two cloth method. To remove dust, use oil-free compressed air.
Priming	CMSFS does not normally require primer on most common substrates used in building. In cases of immersion, mainly with porous substrates, a primer is recommended. On non-porous substrates, primer should be applied with a cloth or a soft brush, in the case of particularly porous materials, apply a second layer after drying.
Joint dimensions	The movement capability of sealant as well as local regulations must be considered. Joint width should be twice the depth.
Sealant application	For good performance it is essential that the sealant is only bonded to the two facing sides of the joint, to achieve this install a backup material (closed cell polyethylene or open cell polyurethane foam). Apply the sealant in a continuous operation making sure all air pockets or voids are eliminated. Tool the sealant with light pressure to spread the material against the joint surfaces, this operation should be made with a dry spatula before skin formation occurs. Excess uncured sealant should be wiped and cleaned with a commercial solvent such as trichlorethylene, cured sealant can only be removed by abrasion.

LIMITS OF USE

CMSFS is not recommended for use on materials where migration of constituents can take place, e.g. certain rubbers. It must not be used for jointing aquariums or swimming pools. For all uses in permanent immersion please consult us.
CMSFS, once cured, should not be painted (poor coverage and adhesion of paint).
CMSFS is not recommended where abrasion or physical abuse will be encountered.
CMSFS must not be used for food contact.
When in contact with alkyd paints a slight yellowing can appear on the surroundings of the joint.

COLOUR RANGE

WHITE, GREY, TEAK, BRONZE, BLACK, BUFF, PORTLAND, OFF WHITE, TERRACOTTA RED, ANTHRACITE, LIGHT GREY, AND LIMESTONE

PACKAGING	CMSFS is available in 380ml cartridges.
STORAGE AND SHELF LIFE	CMSFS has a shelf life of 18 months from its date of manufacture (the expiry date is shown on the packaging). Once the packaging has been opened the product must be used as soon as possible.
SAFETY	Consult the Safety Data Sheet for CMSFS.

WARNING TO USERS

The information contained in this document is given in good faith based on our current knowledge. It is only an indication and is in no way binding, particularly as regards infringement of or prejudice to third party rights through the use of our products.

CM SEALANTS GUARANTEES THAT ITS PRODUCTS COMPLY WITH ITS SALES SPECIFICATIONS.

This information must on no account be used as a substitute for necessary prior tests which alone can ensure that a product is suitable for a given use.

Users are responsible for ensuring compliance with local legislation and for obtaining the necessary certifications and authorisations.

Users are requested to check that they are in possession of the latest version of this document and CM SEALANTS is at their disposal to supply any additional information.