



## MASTER PROOFER S123

### Hi-Temp Red Silicone Sealant

### 抗高溫硅酮密封膠

#### 1.0 Description

MASTER PROOFER S123 is a one part high temperature resistance Silicone Sealant which is manufactured to the specification of Master Proofer Company Ltd., it was formulated to perform at temperature ranging from -85°F to 500°F (-65°C to 260°C) for continuous operation and to 650°F (343°C) for intermittent exposure.

#### 2.0 Technical Data

Base Polymer	Red Silicone Rubber
Storage Condition	Keep dry between 5 ° C & 30 ° C
Shelf Life	12 months @ 25 ° C
Durometre Hardness(Shore 'A')	32 ASTM D 676
Application Temperature	-20 ° C to 50 ° C
Service Temperature	-65 ° C and 316 ° C for intermittent exposure
Tooling Time @ 23 ° C 50% RH	5-10 min.
Tack-Free Time at 25 ° C and 50% RH	10-20 min
Cure Time @ 23 ° C 50% RH (3.15mm Thickness)	24 hours
Average Life Expectancy	> 20 years
Resistance to Water	Excellent
Resistance to Chemicals	Resist most engine fluid
Resistance to UV	Excellent
Flammability	Does not support combustion
Standards Compliance	ASTM -920-86 TT-S-001543A , TT-S-00230C MIL-A-46106A, Amend. 2, type 1.
Colour	Red only
Dynamic Movement Capability	± 25%
Tensile Strength, psi	30 ASTM D 412
Elongation at Break	500% ASTM D 412
Adhesion	Good adhesion with glass, metal and most woods primer might require on other substrate

#### 3.0 Typical Application

Sealing and encapsulating heating elements in appliance, Aerospace gasketing, moving oven belts, industrial ovens, bag filters on smoke stacks and other critical bonding, sealing potting, encapsulating and protective casting where parts must perform at high temperature..

#### 4.0 Preparation

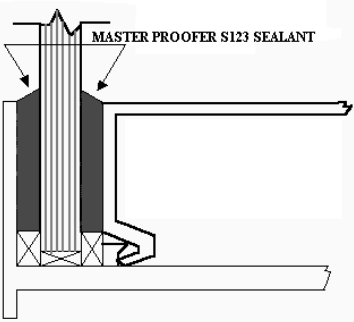
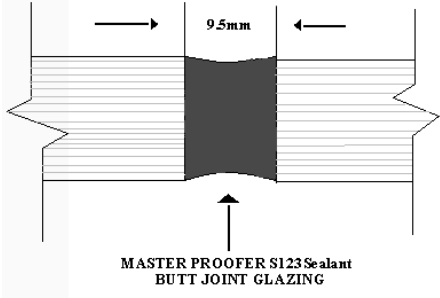
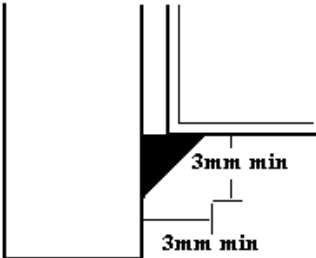
All surfaces should be sound, clean, dry, free of dust, oil, grease or other contamination. Loose matter should be removed by abrasion if necessary finally removing the dust by brush. Oil and grease are removed by the use of a cloth moistened with xylene or approved solvent. The cleaning cloth should be replaced regularly to avoid the redistribution of the contaminates over the surface. Care should be taken to ensure that all protective films and laquers etc is removed prior to the application of the sealant. Masking tape may be used to ensure a neat edge to the seal and protect substrates from which the removal of sealant is difficult. It should be applied before priming and be removed immediately after tooling, before the sealant starts to cure. A suitable back-up material (approximately 30% oversize) should be placed into the joint to the required depth-see **Joint design**. Closed cell polyethylene foam is normally used as it also acts as a bond-breaker, ensuring that the sealant bonds only to the sides of the joint.

#### 5.0 Cleaning tools and equipment

Tools can be cleaned using xylene, white spirit or similar solvent.

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**6.0 Joint Design**

<p><b>Joint Design Diagram A</b></p> 	<p><b>Joint Design Diagram B</b></p> 
<p><b>Joint Design Diagram C</b></p> <p>When used as a triangular fillet there should be at least 3mm cover on each substrate and the fillet should be a regular triangle in cross section.</p> 	<p><b>Note.</b> When the Width: Depth ration is altered, the Movement Accommodation Factor is lowered and allowance must be made in the calculation of the joint wide. In common with other Silicone sealant, MASTER PROOFER S123 does not accept a paint finish.</p>

**7.0 Application**

Before starting application ensure that any primer or cleaner has dried fully. Using MPGun A912 or similar, extrude the sealant into the base of the joint and ensure that complete contact is made with the substrates. Care should be taken to avoid trapping air within the sealant. Select a tool to suit the width of the joint and wet it with clean water containing a little detergent. Working upwards in case of vertical joints, lightly tool the sealant into the joint. This will improve adhesion, reduce air content and end enhance the appearance of the finished joint. If masking tape was used, it should be carefully removed, ensuring that it is not dragged across the face of the joint.

**8.0 Coverage**

The following formula gives the quantity of cartridges required:

$$\frac{\text{Joint width} \times \text{depth (mm}^2) \times \text{Length (M)} \times 1.04}{300} = \text{No. of cartridges}$$

**9.0 Health and Safety**

MASTER PROOFER S123 is irritating to eyes. If eyes are contaminated, wash with plenty of clean water and seek medical advice. For further information, consult relevant Material Safety Data Sheet.

**10.0 Technical Service**

The Marketing and Technical offices of Master Proofer Company Ltd are readily available for advice on any of the Company's Products.

**11.0 Packaging**

MASTER PROOFER S123 Silicone Sealant is available in 300g disposable cartridge.