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# TECHNICAL DATA SHEET

Date: 28 June 2018
Version: 1002
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# Arc Heat Resistant Silicone

**Product Description**
ARC HEAT RESISTANT SILICONE is a black high modulus, reactive curing silicone sealant specifically designed for high temperature applications. It cures quickly to reduce dirt pick up. It remains permanently flexible, forming a weathertight rubber-like seal.

**Benefits**
- Excellent temperature resistance: remains flexible from -50 - +300oC
- Extremely low dirt pick up. – 1 hour tack free.
- Excellent adhesion to non-porous surfaces.
- Waterproof seal

**Areas For Use**
- Multitude of Industrial uses
- As a gasket sealant.
- For joints and assemblies, which must be resistant to high temperatures in ducting, metal chimneys, industrial/domestic ovens, heating appliances.

**Limitations**
- Do not use on porous surfaces such as brick, concrete and stone.
- Do not use in conjunction with bitumen, lead or Asphalt.
- Not for use on substrates that may bleed oils, solvent or plasticisers.
- Do not use on soft metals such as lead or brass.
- On temperatures above 285oC, slight discolouration may occur, but the joint will maintain its integrity.
- Do not use above 300oC.

**Surface Preparation**
All surfaces must be clean, dry and dust free. All loose or flaking surface coatings, and old sealant and mastic joints, should be removed before application. Highly porous substrates such as new plaster should first be primed with a dilution of Caulk with water at a ratio of 1:2. Can be applied to slightly damp surfaces.

**Application**
The surfaces to be must be clean, dry and free from dust, grease and other contaminants. Improve adhesion by wiping surface with white spirits. Priming is generally not required, although we always advise testing small areas prior to use.

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Joint design should be as follows:
Minimum width: 6mm. Movement capacity will be impaired if the depth of the joint is greater than the width. For maximum movement accommodation, it is recommended that:
1. The joint depth should be no less than 5mm
2. Joint depth should be 5mm for joints up to 10mm wide
3. Joints above 10mm in width should be half the width in depth up to 20mm and minimum 10mm for wider joints.

Triangular fillets should be no less than 12mm across the face and should be finished with a flat or convex face.

Cut the tip of the cartridge taking care not to damage the thread. Apply nozzle and cut at an angle of 45o with an opening slightly larger than the gap to be sealed. Apply using a standard sealant gun. Best results will be obtained by keeping an even pressure on the trigger and keeping the gun at a constant angle to the surface being sealed. To ensure a proper bond, always smooth the sealant down with a spatula or piece of wood wetted with linseed oil or white spirits. An improved joint appearance can be achieved by placing masking tape to both sides of the joint, removing within 5 minutes of application.

Specific Data

| | |
|---|---|
| **Movement Accommodation** | + or – 20% |
| **Skinning Time** | 5 mins @ 20°C |
| **Cure Time** | 3mm per 24 hours |
| **Hardness Shore A** | 23 |
| **Shrinkage** | <5% |
| **Service Temperature Resistance** | -50 to +300°C |
| **Application Temperature** | + 5 to 40°C |
| **Tensile Strength** | 1.0 Mpa |
| **Stress** | 0.3 Mpa |
| **Specific Gravity** | 1.04 |
| **Cleaning** | Uncured sealant: white spirit<br>Cured sealant: Silicone Eater |
| **Minimum Joint Width** | 6mm |
| **Maximum Joint Width** | 30mm |
| **Joint Ratio** | Maximum depth 50% of joint width |
| **Coverage** | @ 10 linear metres 9 x 9mm fillet joint |

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**Health & Safety**
Consult MSDS for full list of hazards

**Storage**
Store in cool dry conditions between + 5'C and 25'C.

**Shelf Life**
Use within 12 months.