

# AS5703

## 1 Part Thixotropic adhesive sealant for Photovoltaics

### Introduction

This is a non-corrosive, neutral cure, 1-part, RTV (Room Temperature Vulcanising) silicone adhesive sealant. It is one in a range of Alkoxy cure products which are solvent free. It exhibits excellent primerless adhesion to many substrates and cures at room temperature when in contact with atmospheric moisture to form a tough rubber. This product will not corrode copper or its alloys and is suitable for use with electronic components.

### Key Features

- RAL 7035 Grey
- Excellent adhesion to most substrates
- Suitable for polycarbonates and sensitive materials
- Non slumping

### Use and Cure Information

This product is a ready for use 1 Part system. If supplied in cartridges it can be applied using either manual or pneumatic dispensing guns. It can also be applied from bulk containers using conventional drum dispensing equipment.

All surfaces to which the sealant is to be applied should be clean, dry and free from grease, dirt, and loose material. Priming of surfaces is not normally required. If using as an adhesive, it should be applied to one clean surface and the other clean surface brought into contact with it within the tack free time stated opposite. For optimum bond strength, the thickness of the sealant joint should be a minimum of 1 mm.

The sealant will cure upon exposure to atmospheric moisture, ideally between 20 to 30 °C and 40% to 70% Relative Humidity. Time taken for cure will depend on the thickness of the joint, humidity and temperature. Joints should be left undisturbed for at least 24 hours, but preferably longer to effect sufficient depth of cure. Full cure requires 7 days.

"For pneumatic dispensing of 310 ml cartridges, the recommended pressure is 2.25 to 3.45 bar (40 to 50 psi). Dispensing pressure above the recommended limits may lead to gas bypassing the piston, causing spluttering at the nozzle and poor bead quality"

### Health and Safety

Safety Data Sheets available on request.

### Packaging

ACC Adhesives are available in a variety packaging including cartridges and bulk containers. Please contact our sales department for more information.

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### Property

#### Uncured product

Appearance  
Cure Type  
Extrusion Rate g/min  
FDA  
Max Cure Hrs @ 25 °C  
Rheology  
Self Bonding  
Tack Free Time mins

#### Cured product

**After 7 days cure at 23° +/-2° C and 50+/-5% humidity**

CTE Linear ppm/°C  
CTE Volumetric ppm/°C  
Colour  
Duro Shore A  
Elongation %  
SG  
Tensile MPa  
Thermal Conductivity W/mK  
UL 94V-0

#### Storage

Max storage temperature °C  
Shelf life

#### Electrical properties

Volume Resistivity ohms cm ASTM D-257

### Test Method

CFR (21) 177.2600

ASTM D 2240-95

ISO 37

BS ISO 2781

ISO 37

ASTM D-257

### Value

**Thixotropic paste**  
**Alkoxy**  
**151 g/min**  
**No**  
**24 hrs**  
**Paste**  
**Yes**  
**15 mins**

**232 ppm/°C**  
**697 ppm/°C**  
**Grey**  
**34**  
**580 %**  
**1.5**  
**2 MPa**  
**0.5 W/mK**  
**No**

**40 °C**

**12 mths**

**6.6E+15 ohms cm**

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