Technical Data Sheet

AS1802 (1084G)
1 Part neutral thermally conductive adhesive sealant

Introduction

AS1802 is a non-corrosive, 1-part, room temperature vulcanising (RTV) silicone rubber.
It is one of a new family of products called acetone cure sealants that are solvent free.
It exhibits excellent primerless adhesion to many substrates.
The product is cured rapidly in contact with atmospheric moisture to a tough rubber.
It does not corrode copper or its alloys and exhibits excellent primerless adhesion when fully cured.

Key Features

- **Excellent thermal conductivity**
- **Non corrosive**
- **Fast skinning**
- **Low linear shrinkage**

How to Use

AS1802 is ready for use. If supplied in cartridges it can be applied using either manual or pneumatic dispensers.
It can also be applied from bulk containers using conventional drum dispensing equipment.

Application and Cure

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 15 to 20 seconds.
For optimum bond strength the thickness of the sealant joint is 1 to 2mm.
Joints should be left undisturbed for at least 24 hours, but preferably longer to effect sufficient depth of cure. Full cure requires 7 days.

Health and Safety - Material Safety Data Sheets available on request.

Packages - 75 ml and 310 ml cartridges. Arrangements can be made to supply in bulk containers.

Storage and Shelf Life – Expected to be **12** months in cartridges and 9 months in bulk, unopened containers.

Property	**Test Method**	**Value**
Uncured Product		
Colour:		**Grey**
Appearance:		**Grey paste**
Tack Free Time:		**4 minutes ***
3mm Cure Through:		**<8 hours ***
Extrusion Rate:		**g / minute**
Viscosity		**350000 mPas**

* measured at 23+/-2°C and 65% relative humidity.

Cured Elastomer		
(after 7 days cure at 23+/-2°C and 65% relative humidity)		
Tensile Strength:	BS903 Part A2	**3.90 MPa**
Elongation at Break:	BS903 Part A2	**103 %**
Youngs Modulus:		
Modulus at 100% Strain:	BS903 Part A2	**MPa**
Tear Strength:	BS903 Part A3	**kN/m**
Hardness:	ASTM D 2240-95	**67° Shore A**
Specific Gravity:	BS 903 Part A1	**2.11**
Linear Shrinkage:		**0.5%**
Thermal Conductivity:		**2.30W/mK**
Coefficient of Thermal Expansion:		
Volumetric		**493 ppm / °C**
Linear		**164 ppm / °C**
Min. Service Temperature:		**-50°C**
Max. Service Temperature:	AFS 1540B	**220 °C**

Electrical Properties

Volume Resistivity:	ASTM D-257	**1E+14Ω.cm**
Surface Resistivity:	ASTM D-257	**Ω**
Dielectric Strength:	ASTM D-149	**20kV/mm**
Dielectric Constant at 1MHz:	ASTM D-150	**4.90**
Dissipation Factor at 1MHz:	ASTM D-150	**0.9E-3**

Adhesion Testing

Overlap Shear Strength:	ASTM D 1002	kg/cm^2
Copper		**3.60**
Aluminium		**7.15**
Stainless Steel 304		**2.98**
Polycarbonate		

Customers are advised to carry out their own tests on clean, degreased substrates to ensure satisfactory adhesion is achieved

Stress cracking can appear on some grades of polycarbonate. Customers are advised to carry out initial testing to ensure product compatibility.

All values are typical and should not be accepted as a specification.

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ACC Silicones Ltd, Amber House,
Showground Road, Bridgwater, Somerset, UK
Tel. +44(0)1278 411400 Fax. +44(0)1278 411444

Treco S.R.L., Via Romagna N.8,
20098 Sesto Ulteriano (MI), Italia.
Tel. 39/02/9880913 Fax. +39/02/98280413

www.acc-silicones.com

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