Technical Data Sheet

AS2701
2-Part Thermally Conductive Adhesive Paste

Introduction
AS2701 is a two part, non corrosive condensation curing adhesive silicone paste specifically designed to provide fast cure and adhesion at room temperature. It features a convenient mixing ratio of 10 to 1 by volume for manual cartridge dispensing or machinery dispensing, excellent adhesion and compatibility with many sensitive substrates including copper, brass, steel, aluminium, FR4, and polycarbonate making this an ideal option where fast curing, thermal management and adhesion are needed

Key Features
- 10:1 volumetric ratio for machine or cartridge dispensing
- Fast curing at room temperature
- Thermally conductive
- Adhesion to many substrates

Use and Cure Information

How to Use
AS2701 is supplied as two components, AS2701A and AS2701B packaged in a 10 to 1 ratio twin cartridge. AS2701 is also suitable for machine dispensing. The dispensing machine must be set to deliver 10 parts of A and 1 part of B by VOLUME, through a static mixing nozzle and then applied to the substrate. IMPORTANT the mixed components will cure in the nozzle so to preserve nozzles a continuous process is required or a change of nozzle after the task is completed. A GXF type nozzle of at least 9 elements is recommended for uniform mixing of both components. Dispensing by weight requires 23 parts of A and 2 part of B.

Automated dispensing machinery is available through ACC silicones, please discuss with your Regional Sales Manager.

Application and Cure
Ensure the surface is clean and dry (recommend using ACC Degreaser or isopropanol) before applying the AS2701 package. Complete mixing of each component is achieved within the first 50-60% of the nozzle. The extruded sealant should be applied to the substrate immediately and tooled within 12 minutes.

Revision date: 18/04/2016

Property		Test Method	Value
Uncured Products			
Colour:	A Part		Grey
	B Part		Black
Appearance:	A Part		Paste
	B Part		Liquid
SG:	A Part		2.31
	B Part		1.00
Viscosity	A Part	Brookfield	180000 mPa.s
	B Part	Brookfield	2800 mPa.s
Extrusion rate from a 265ml 10 to 1 Cartridge at 87 PSI, g / min			124
Tack Free Time:			12 minutes *
Cure to handle:			50 minutes *
* measured at 23+/-2°C and 65% relative humidity.			
Cured Elastomer (after 7 days cure at 23+/-2°C and 45 to 55% relative humidity)			
Tensile Strength:		BS903 Part A2	2.01 MPa
Elongation at Break:		BS903 Part A2	80 %
Youngs Modulus:			6.00 MPa
Hardness:		ASTM D 2240-95	64 Shore A
Specific Gravity:		BS 903 Part A1	2.18
Thermal Conductivity:			1.55 W/mK
Coefficient of Thermal Expansion:			
Volumetric			372 ppm / °C
Linear			124 ppm / °C
Min. Service Temperature:			-50 °C
Max. Service Temperature:		AFS 1540B	+200 °C

Electrical Properties

Volume Resistivity:	ASTM D-257	2.00E+13Ω.cm
Dielectric Strength:	ASTM D-149	>18 kV/mm

Adhesion
Ensuring all substrates are clean are free of surface contaminates. ACC 52 degreaser is recommended for metallic substrates and isopropanol solvent is recommended for plastics and polycarbonates. AS2701 will develop a mechanical bond to the substrates within 50 minutes of applying. A chemical bond will develop after 24 hours and maximum adhesion is reached after 5 days.

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

Packages – 265 ml 10 to 1 twin cartridges, please discuss with your regional sales manager for alternative packing options for machinery dispensing.

Storage and Shelf Life – Expected to be 6 months in original, unopened containers below 30°C.

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