Technical Data Sheet

AS2502
2-Part Fast Curing Adhesive Sealant

Introduction
AS2502 is a novel accelerated condensation curing package, which consists of an acetoxy (A part) sealant and an accelerator (B part)) in a 10 : 1 volumetric ratio. By extruding the system through a static mixer nozzle, the intimately mixed system behaves like a conventional silicone sealant, but has the advantage of very rapid cure - less than 1 hour to almost full cure and sufficient cure to enable handling after 25 minutes.

Key Features
- Good adhesion and fast assembly
- Heat accelerated cure at 120°C
- sufficient anaerobic cure for handling in 25 minutes (not possible with conventional 1-Part RTV sealants)
- similar physical properties to the conventional sealant
- can be heat accelerated

Use and Cure Information

How to Use
AS2502 is supplied as two components, AS2502A sealant and AS2502B accelerator packaged in a 10 to 1 ratio twin cartridge. AS2502 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 application. 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 nozzle of at least 20 folds is recommended for uniform mixing of both components. Dispensing by weight requires 10 parts of A and 1.17 parts 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) before applying the AS2502 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 1 minute of application.
Heat acceleration at 120°C will give a full cure within 1 hour.

Temperature Resistance
Laboratory tests at 250°C, over a 196 hour period and 300°C over a 72 hour period have showed AS2502 to remain flexible and retain its adhesive properties.
Low temperature testing at -65°C for a 10 minute period gave a hardening of the product but no cracking or failure of adhesion was observed (laboratory tests performed by preparing a cured sample on an aluminium test panel and carbon dioxide solid /dry ice was used to crash cool the sample).

Property		Test Method	Value
Uncured Products			
Colour:	A Part		Red
	B Part		Black
Appearance:	A Part		Paste
	B Part		Paste
SG:	A Part		1.03
	B Part		1.20
Viscosity mPa.s:	A Part		72000
	B Part		300000
Tack Free Time:			4 minutes *
Cure Through:			<1hour *
* 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	1.50 MPa
Elongation at Break:		BS903 Part A2	260 %
Youngs Modulus:			0.38 MPa
Modulus at 100% Strain:		BS903 Part A2	0.50 MPa
Tear Strength:		BS903 Part A3	4.00k N/m
Hardness:		ASTM D 2240-95	30 Shore A
Specific Gravity:		BS 903 Part A1	1.06
Linear Shrinkage:			<1.0%
Thermal Conductivity:			0.20 W/mK
Coefficient of Thermal Expansion:			
Volumetric			876 ppm / °C
Linear			292 ppm / °C
Min. Service Temperature:			-65 °C
Max. Service Temperature:		AFS 1540B	+250 °C

Electrical Properties

Volume Resistivity:	ASTM D-257	2.10E+14Ω.cm
Surface Resistivity:	ASTM D-257	1.24E+16Ω
Dielectric Strength:	ASTM D-149	>18 kV/mm
Dielectric Constant at 1MHz:	ASTM D-150	3.0
Dissipation Factor at 1MHz:	ASTM D-150	2.6E-3

Adhesion Testing
Good adhesion to many substrates including glass stainless steel, aluminium and most plastics.
Customers are advised to carry out their own tests on clean, degreased substrates to ensure satisfactory adhesion is achieved. All values are typical and should not be accepted as a specification.

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

Packages – 264 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 12 months in original, unopened containers below 40°C.

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