

AS1406

Characterization

This is a heat cured, non-corrosive, neutral cure, 1-part, silicone adhesive sealant. It is one in a range of Addition cure products which are solvent free.

It exhibits primless adhesion to many substrates when cured at temperatures above 100°C. It cures to form a very tough resilient silicone elastomer. This product will not corrode copper or its alloys and is suitable for use with electronic components.

Key Features:

- Thermally conductive
- Adhesion and 8 mm cure through at 100°C after 60 minutes
- Flame resistant
- Shelf life => 9 months at 5°C

Technical Data

	AS1406		
Viscosity	100,000	mPa·s	Brookfield HBTD
	Mixture		
Cure Type	Addition		
FDA	nein		CFR (21) 177.2600
Max Cure Mins @ 100°C	60	min.	
Rheology	Flowable		
Self Bonding	Yes		
Colour	grey		
	After 1 hour at 125°C		
CTE Linear	62	ppm/°C	
CTE Volumetric	186	ppm/°C	
Duro Shore A	72		ASTM D 2240-95
Working Temp.	-60 - 250	°C	AFS_1540B
Tensile	1	MPa	ISO 37
Elongation	40	%	ISO 37
Modulus Youngs	6.13	MPa	
SG	3		BS ISO 2781
Thermal Conductivity	3	W/m*K	
Volatile Content	< 900	ppm	

	Electrical properties		
Dielectric Constant	3.07	1kHz	ASTM D-150
Dissipation Factor	0.0072	1kHz	ASTM D-150
Volume Resistivity	4E+12	ohms*cm	ASTM D-257

Storability / Storage

When proper storage approx. 9 months if stored properly below -5 - <10°C and protected from frost and dry in closed original containers.

The above given values are product describing data. Please consult the 'delivery specification' for binding product specifications. Further data about product properties, toxicological, ecological data as well as data relevant to safety can be found in the safety data sheet.

Application Technique

Processing

This product is a ready to use 1-Part system. It is recommended that liquid versions be thoroughly mixed prior to use, particularly thermally conductive products which are supplied in tubs or pails. Ensure that all surfaces of the substrate are clean and degreased. The work area should be free of contaminants such as organic compounds of sulphur, phosphorus, nitrogen and tin, which act as catalyst poisons.

The rate of cure will depend on how long it takes for the sealant to reach the required curing temperature. Small beads of 1 to 2 mm diameter, used as formed-in-place gaskets, can be cured quickly with hot air guns e.g. paint stripper types. With larger sections of sealant or when using as an encapsulant, cure time will increase and the use of an oven will be needed. Increasing the temperature will reduce cure times and maximum cure temperature should not exceed 200°C. All times are based on the actual time in an air-circulating oven at the stated temperature.

Note:

Improved adhesion is achieved by post cure at 120 to 150°C for 1 to 2 hours.

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.

It is absolutely important to check the compatibility in preliminary tests if unknown substrates are used.

Safety

Please observe our EC safety data sheets and the safety remarks on our container labels when handling our products. The dangerous goods regulations and the accident prevention regulations of the professional associations must be particularly observed. Keep the EC safety data sheet of the applied product at hand since it provides you with useful instructions for the safe use and disposal of the product as well as for actions to be taken in case of accidents.

We reserve the right to modify the product and technical leaflet.

Our department for applied technique is always at your service for further information and advice.

Our technical advice and recommendations given verbally, in writing or by trials are believed to be correct. They are neither binding with regard to possible rights of third parties nor do they exempt you from your task of examining the suitability of our products for the intended use. We cannot accept any responsibility for application and processing methods which are beyond our control.

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