ADVANCED ENGINEERING

R34-2186 FAST-CURE SILICONE ADHESIVE

DESCRIPTION

- Two-part, 1:1 Mix Ratio (Part A:Part B)
- Designed to adhere to Polyurethane
- Does not require atmospheric moisture to cure
- No curing byproducts such as acetic acid or methyl alcohol
- Consistency allows products to be supplied in easy-to-use, airless side-by-side kits that eliminate mixing and dealring difficulties

APPLICATION

- Adhesive for bonding and sealing silicones to each other and a myriad of substrates such as stainless steel and polyurethane
- For rapid production or prototyping due to a rapid cure

PROPERTIES

TYPICAL PROPERTIES	AVERAGE RESULT	ASTM	NT-TM
Uncured			
Appearance	Translucent	D2090	002
Extrusion Rate	9.0 g/minute	C603	033
Work Time	18 hours	-	008
Cured: 15 minutes @ 120°C (250°F)			
Specific Gravity	1.09	D792	003
Durometer, Type A	48	D2240	006
Tensile Strength	830 psi (5.7 MPa)	D412, D882	007
Elongation	340%	D412, D882	007
Tear Strength	70 ppi (12.3 kN/m)	D624	009

Properties tested on a lot-to-lot basis. Do not use the properties shown in this technical profile as a basis for preparing specifications. Please contact NuSil Technology for assistance and recommendations in establishing particular specifications.



INSTRUCTIONS FOR USE

Mixing

Part A and Part B mix in a 1:1 mix ratio when extracted from their side-by-side kits through a static mix and dispense cartridge. Attach the disposable static mix tip to the cartridge and extrude the product directly onto the substrate.

Note: NuSil Technology recommends discarding the first few grams of extruded material.

R34-2186 can also be purchased in standard two-part kits. When using standard kits, take care to minimize air entrapped while mixing. Place the mixed product in a vacuum chamber to remove entrapped air and subsequently reduce bubble formation during curing.

Substrate Considerations

Cures in contact with most materials common to biomedical assemblies. Exceptions include: sulfur-cured organic rubbers, latex, chlorinated rubbers, some RTV silicones and unreacted residues of some curing agents

Adjustable Cure Schedule

Products cure at a wide range of cure times and temperatures to accommodate different production needs. Contact NuSil Technology for details.

HEAT AND LOW-TEMPERATURE RESISTANCE

In most applications, silicone may be heated from 180 to 200°C for a year, or even up to 450°C for short periods, without any appreciable effect on physical properties. Silicone also demonstrates flexibility at extreme low temperatures, with a stiffening temperature range of -50 to -70°C.

The operating temperature range of a silicone in any application is dependent on many variables, including but not limited to: temperature, time of exposure, type of atmosphere, exposure of the material's surface to the atmosphere, and mechanical stress. In addition, a material's physical properties will vary at both the high and low end of the operating temperature range. The user is responsible to verify performance of a material in a specific application.

ROHS AND REACH COMPLIANCE

R34-2186 is compliant with the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) regulation contained in Article 4(1) of the European Parliament and Council's Directive 2002/95/EC. RoHS mandates that manufacturers restrict the use of lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls, polychlorinated biphenyls, and polybrominated diphenyl ethers in electrical and electronic equipment.

Packaging	
50 mL SxS Kit 400 mL SxS Kit	
Warranty	
12 Months	

R34-2186 is also compliant with the Registration, Evaluation, and Authorization of Chemicals (REACh) regulation (European Union 1907/2006). R34-2186 does not contain any of the 16 chemicals identified as Substances of Very High Concern (SVHC) by the European Chemicals Agency (ECHA), which oversees REACh compliance.

Please contact NuSil Technology's Regulatory Compliance department with any questions or for further assistance.

SPECIFICATIONS

Do not use the properties shown in this technical profile as a basis for preparing specifications. Please contact NuSil Technology for assistance and recommendations in establishing particular specifications.

WARRANTY INFORMATION

The warranty period provided by NuSil Technology LLC (hereinafter "NuSil Technology") is 12 months from the date of shipment when stored below 40°C in original unopened containers. Unless NuSil Technology provides a specific written warranty of fitness for a particular use, NuSil Technology's sole warranty is that the product will meet NuSil Technology's then current specification. NuSil Technology specifically disclaims all other expressed or implied warranties, including, but not limited to, warranties of merchantability and fitness for use. The exclusive remedy and NuSil Technology's sole liability for breach of warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted. NuSil Technology expressly disclaims any liability for incidental or consequential damages.

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NuSil Technology believes, to the best of its knowledge, that the information and data contained herein are accurate and reliable. The user is responsible to determine the material's suitability and safety of use. NuSil Technology cannot know each application's specific requirements and hereby notifies the user that it has not tested or determined this material's suitability or safety for use in any application. The user is responsible to adequately test and determine the safety and suitability for their application and NuSil Technology makes no warranty concerning fitness for any use or purpose. NuSil Technology has completed no testing to establish safety of use in any medical application.

NuSil Technology has tested this material only to determine if the product meets the applicable specifications. (Please contact NuSil Technology for assistance and recommendations when establishing specifications.) When considering the use of NuSil Technology products in a particular application, review the latest Material Safety Data Sheet and contact NuSil Technology with any questions about product safety information.

Do not use any chemical in a food, drug, cosmetic, or medical application or process until having determined the safety and legality of the use. The user is responsible to meet the requirements of the U.S. Food and Drug Administration (FDA) and any other regulatory agencies. Before handling any other materials mentioned in the text, the user is advised to obtain available product safety information and take the necessary steps to ensure safety of use.



PATENT / INTELLECTUAL PROPERTY WARNING

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