#### ADVANCED ENGINEERING

#### CV-1148 CONTROLLED VOLATILITY RTV SILICONE ATOMIC OXYGEN PROTECTIVE COATING

#### DESCRIPTION

- One-part, black silicone dispersion
- Provided as an RTV silicone dispersion in VM&P Naphtha

Meets or exceeds the ASTM E 595 low outgas specifications outlined in NASA SP-R-0022A and European Space Agency PSS-014-702, with a TML of  $\leq$ 1% and CVCM of  $\leq$ 0.1%

#### APPLICATION

- For applications requiring low outgassing and minimal volatile condensables under extreme operating conditions
- Provides atomic oxygen and electrostatic discharge
  protection
- For applications requiring a broader operating temperature range

#### PROPERTIES

AVERAGE RESULT	ASTM	NT-TM
Black	D2090	002
70%	D2288	004
7,500 cP (7,500 mPas)	D1084, D2196	001
1 hour	C679	005
1.34	D792	003
0.03%	E 595	072
	Black 70% 7,500 cP (7,500 mPas) 1 hour 1.34	Black     D2090       70%     D2288       7,500 cP (7,500 mPas)     D1084, D2196       1 hour     C679

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

Apply by spraying, dipping or brushing. Thin with VM&P Naphtha (NuSil Technology R-1001) to the appropriate viscosity for spray equipment. Mix with a moisture free solvent in a closed container, preferably with a commercial paint shaker.

Caution: Consult the MSDS for CV-1148 prior to use, as the solvent carrier is hazardous.

#### Inhibition Concerns

Although generally considered to be non-corrosive to most substrates, the oxime cure system may cause discoloration in the presence of copper or copper alloys.

Note: Some bonding application may require the use of a primer. NuSil Technology SP-120 silicone primer is recommended.

#### 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 of approximately -115°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

CV-1148 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.

CV-1148 is also compliant with the Registration, Evaluation, and Authorization of Chemicals (REACh) regulation (European Union 1907/2006). CV-1148 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 6 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 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.

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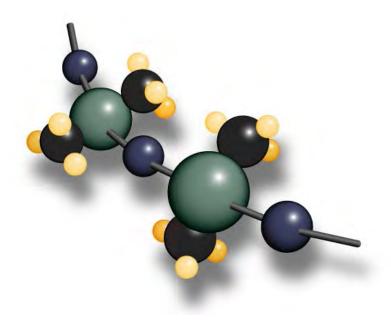
# Silicone Sales & Services UK - Ireland - Benelux

© 2016 - Polymer Systems Technology Limited™ Unit 2. Network 4. Cressex Business Park, Lincoln Road, High Wycombe, Bucks. HP12 3RF

tel: +44 (0) 1494 446610

web: https://www.silicone-polymers.co.uk

email: sales@silicone-polymers.co.uk



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