

**INDUSTRY
SOLUTIONS.**

**Material
Solutions.**

CHT
SMART CHEMISTRY
WITH CHARACTER.

A space shuttle is shown in orbit around Earth, viewed from a low angle. The Earth's blue and white surface is visible on the left, and the dark void of space is on the right. The shuttle is white with black and grey details, and its engines are firing, creating a bright white plume. A large red diagonal shape is overlaid on the bottom right of the image.

SPACE GRADE THERMALLY CONDUCTIVE ADHESIVE

- ▶ **Very low outgassing**
- ▶ **High thermal conductivity**
- ▶ **Wide temperature range**
- ▶ **1-Part room temperature cure**
- ▶ **Meets UL94-V0 testing**

SPACE GRADE THERMALLY CONDUCTIVE ADHESIVE



AS1707 is a 1-part, alkoxy cured, silicone RTV adhesive paste, formulated to meet the requirements for use as a space grade adhesive. Space grade materials typically are low thermal outgassing and have a wide operational temperature range.

In addition to meeting these requirements AS1707 is a thermally conductive silicone designed for use to dissipate unwanted heat from electronic components and power modules.

It has been tested to meet UL94-V0 for flammability and will be put forward for certification in due course.

APPLICATIONS:

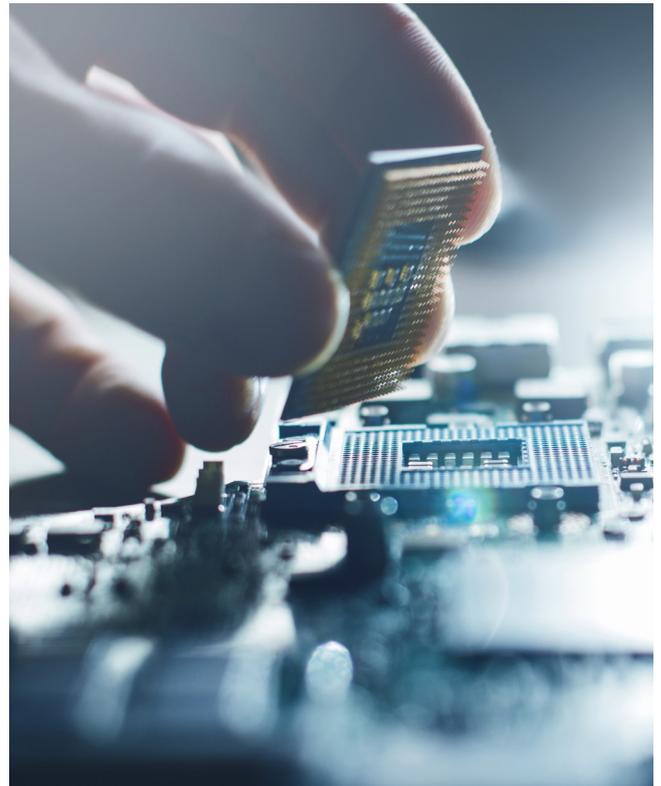
- ▶ Bonding & sealing of enclosures
- ▶ Thermal management
- ▶ Securing components

TESTING CONDITIONS FOR OUTGASSING:

- ▶ Temperature, 127 – 136°C
- ▶ Pressure 1 x 10⁻⁷ to 1 x 10⁻⁴ mbar vacuum pressure
- ▶ Duration, 24 hours
- ▶ Collector temperature, 20°C

TO QUALIFY AS AEROSPACE MATERIAL UNDER ECSS-Q-70-02

- ▶ CVCM <0.1%
- ▶ RML <1.0%



KEY PHYSICAL PROPERTIES

Material Data							
Product	CVCM*	RML*	TML*	Hardness	Thermal Conductivity	Volumetric CTE	Working Temperatures
AS1707	0.03 %	0.10 %	0.09 %	84 Shore A	3.3W/mK	0.015% /°C	-65°C to +230°C

*Definitions: *CVCM = Collected volatile condensable material, *RML = Recovered mass loss, *TML = Total mass loss

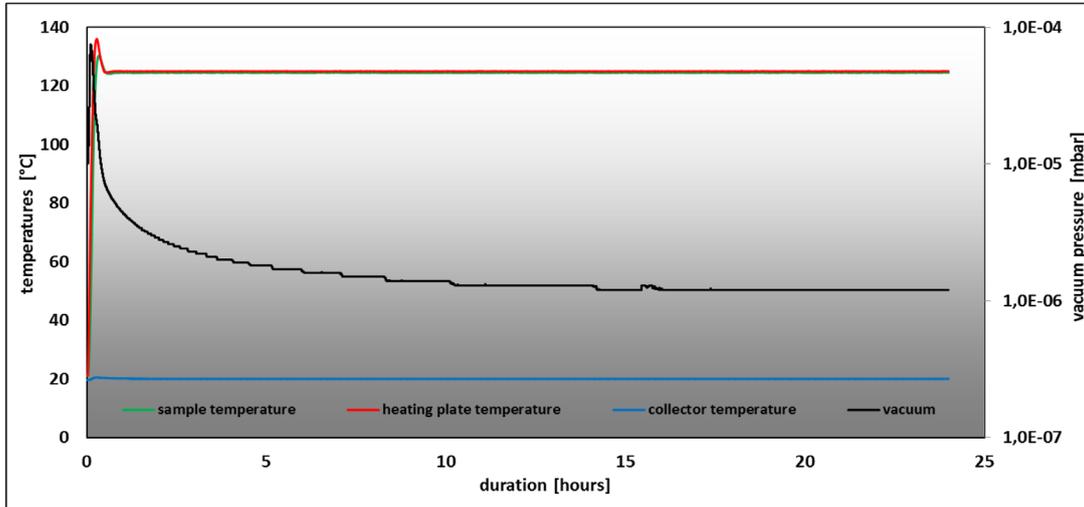
The data are standard values and not suitable for establishing specifications! Please note that the given values were determined in the laboratory and have to be verified in tests on your own for your specific manufacturing under the conditions in practice. Liability cannot be derived from this information. Liability can be assumed only for the consistently high quality of our product.

TEST PARAMETERS

" A Thermal Vacuum Test for the Screening of Space Materials"
 according ECSS-Q-70-02
 Test parameters - Graphic representation



Customer:
 CHT
 TVT1929

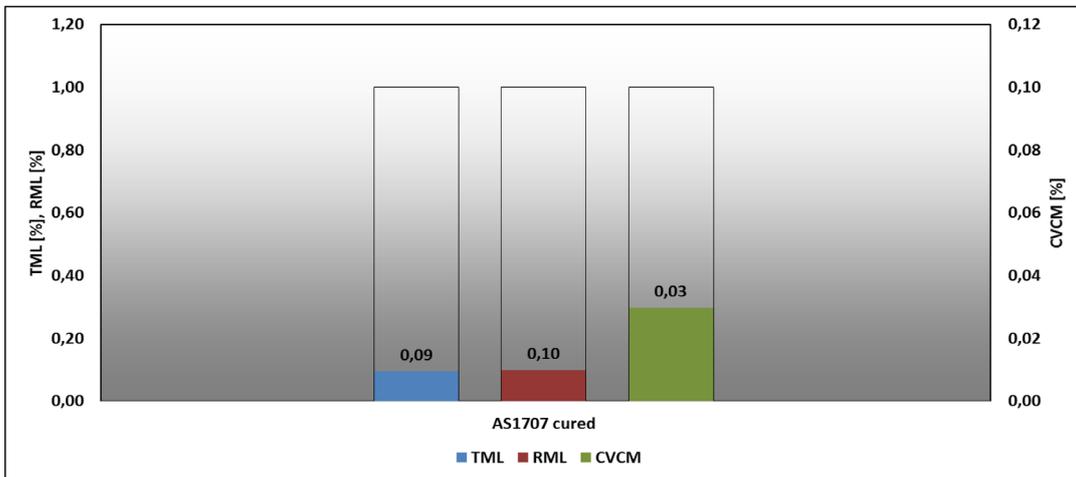


TEST RESULTS

" A Thermal Vacuum Test for the Screening of Space Materials"
 according ECSS-Q-70-02
 Test results - Graphic representation



Customer:
 CHT
 TVT1929



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Version 04., 2020

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