



TEST REPORT

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| In Account With SPECIALTY SILICONE PRODUCTS CORPORATE TECHNOLOGY PARK 3 McCrea Hill Road Ballston Spa, NY 12020 Attn: Sarah Lewis | Date April 15, 2020 | Page 1 of 3 Pages |
| | W.O. Number 67994 | Specification ASTM E595 |
| | P.O. No. 0029363 | Received 04-02-20 |

IDENTIFICATION: Four (4) sample materials were submitted for Outgas Testing in accordance with ASTM E595. The test samples were identified as follows:

- 1) SSP502-60Vo w/ PSA
- 2) SSP502-60Vo w/o PSA
- 3) SSP502-40Vo w/ PSA
- 4) SSP502-40Vo w/o PSA

SPECIFICATION : ASTM E595.

REFERENCE : Purchase Order Number 0029363.

TESTING : Outgas Testing.

SUMMARY : The test results, reported herein, are submitted for customer evaluation.

Respectfully submitted,
PACIFIC TESTING LABORATORIES, INC.

Casie Giblin
Materials Engineer

Reviewed by,

Hans Shin
Laboratory Director

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OUTGAS TESTING

REFERENCE : ASTM E595.

REQUIREMENT : ASTM E595, paragraph 1.5:

The criteria used for the acceptance and rejection of materials shall be determined by the user and based upon specific component and system requirements. Historically, a total mass loss (TML) of 1.00% and collected volatile condensable material (CVCM) of 0.10% have been used as screening levels for rejection of spacecraft materials.

TEST METHOD : The Outgas Test was performed in a vacuum environment of less than 5×10^{-5} torr according to ASTM E595, for a duration of 24 hours, at 125°. The TML, CVCM, and the amount of Water Vapor Recovered (WVR) were measured after the test.

RESULTS : The following tables list the results of the testing:

Table 1: Outgas test results.

| Sample | TML (%) | CVCM (%) | WVR (%) |
|---------------------|---------|----------|---------|
| SSP502-60Vo w/ PSA | 0.21 | 0.08 | 0.02 |
| SSP502-60Vo w/o PSA | 0.19 | 0.09 | 0.01 |
| SSP502-40Vo w/ PSA | 0.24 | 0.12 | 0.02 |
| SSP502-40Vo w/o PSA | 0.18 | 0.09 | 0.01 |

Table 2: Testing observation results for SSP502-60Vo w/ PSA.

| Observations | | | |
|--------------------|------|------------------------------|-----------|
| Visible Condensate | Yes | Opaque | No |
| Percent Covered | 100% | Interference Fringes | No |
| Thin | Yes | Colored Fringes | No |
| Heavy | No | Sample appearance after test | No change |
| Transparent | Yes | | |

RESULTS :
(continued)

Table 3: Testing observation results for SSP502-60Vo w/o PSA.

| Observations | | | |
|--------------------|------|------------------------------|-----------|
| Visible Condensate | Yes | Opaque | No |
| Percent Covered | 100% | Interference Fringes | No |
| Thin | Yes | Colored Fringes | No |
| Heavy | No | Sample appearance after test | No change |
| Transparent | Yes | | |

Table 4: Testing observation results for SSP502-40Vo w/ PSA.

| Observations | | | |
|--------------------|------|------------------------------|-----------|
| Visible Condensate | Yes | Opaque | No |
| Percent Covered | 100% | Interference Fringes | No |
| Thin | No | Colored Fringes | No |
| Heavy | Yes | Sample appearance after test | No change |
| Transparent | Yes | | |

Table 5: Testing observation results for SSP502-40Vo w/o PSA.

| Observations | | | |
|--------------------|------|------------------------------|-----------|
| Visible Condensate | Yes | Opaque | No |
| Percent Covered | 100% | Interference Fringes | No |
| Thin | Yes | Colored Fringes | No |
| Heavy | No | Sample appearance after test | No change |
| Transparent | Yes | | |

REMARKS : The test results, reported herein, are submitted for customer evaluation.