



JCSS
JCSS 0297

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Certificate No.:0000e

Calibration Certificate

| | | | |
|-----------------------|--|-------------|---------------------------|
| Name of Item | Standard Liquid for Calibrating Viscometers | | |
| Type | JS 000 | | |
| S/N | LOT NO.000 | | |
| Name of Manufacturer | NIPPON GREASE Co., Ltd. | | |
| Calibration item | Kinematic Viscosity and Viscosity | | |
| Calibration method | Kinematic viscosity measurements have been made by using capillary type master viscometers. Viscosity is the product of the measured kinematic viscosity and density, both at the same temperature. | | |
| Calibration condition | Ambience condition of room | | |
| | Temperature(°C) | Humidity(%) | Atmospheric Pressure(hPa) |
| | 00.0~00.0 | 00.0~00.0 | 0000.0~0000.0 |
| Calibration place | 1-12-4 Suehiro-cho, Tsurumi-ku, Yokohama-shi, Kanagawa-ken 230-0045, Japan | | |
| Calibration date | MMMM DD, YYYY~MMMM DD, YYYY | | |

The calibration results are showed in the next page.

Issue date : MMMM DD, YYYY

Expiry date : MMMM DD, YYYY

Person in charge of issue : ○ ○ ○ ○

Calibration laboratory
NIPPON GREASE Co., Ltd.
1-12-4 Suehiro-cho, Tsurumi-ku, Yokohama-shi,
Kanagawa-ken 230-0045, Japan

-This certificate is based on article 144 of the Measurement Law and indicates the result of calibration in accordance with measurement standards traceable to Primary Measurement Standards (National Standards) which realizes the physical units of measurement according to the international System of Units (SI). The accreditation symbol is attestation of which the result of calibration is traceable to Primary Measurement Standards (National Standards).
-The certificate shall not be reproduced except in full, without the prior written approval of the issuing laboratory.
-The calibration laboratory who issued this calibration certificate conforms to ISO/IEC 17025:2017.
-This calibration certificate was issued by the calibration laboratory accredited by IAJapan who is a signatory to the Mutual Recognition Arrangement (MRA) of International Laboratory Accreditation Cooperation (ILAC) and Asia Pacific Accreditation Cooperation (APAC). This (These) calibration result(s) may be accepted internationally through ILAC/APAC MRA.
-Expiry date is described based on ISO Guide 31:2015, but is not required in article 144 of the Measurement Law.

Calibration Results

| Temperature(°C) | Kinematic Viscosity(mm ² /s) | Viscosity(mPa·s) |
|-----------------|---|------------------|
| 00.00 | 000.00 ±0.00 | 000.00 ±0.00 |
| 00.00 | 000.00 ±0.00 | 000.00 ±0.00 |
| 00.00 | 000.00 ±0.00 | 000.00 ±0.00 |

Uncertainty of Measurement:

The number following the symbol \pm is the numerical value of an expanded uncertainty obtained by multiplying a combined standard uncertainty by a coverage factor $k=2$. The coverage factor $k=2$ corresponds to a level of confidence of approximately 95% for a normal distribution.

And breakdown for combined standard uncertainty is as follows:

| Temperature(°C) | Breakdown for uncertainties of calibrated values (%) | | |
|-----------------|--|----------------|------------------------|
| | Kinematic Viscosity (※1) | Viscosity (※1) | Storage Stability (※2) |
| 00.00 | ±0.00 | ±0.00 | ±0.00 |
| 00.00 | ±0.00 | ±0.00 | ±0.00 |
| 00.00 | ±0.00 | ±0.00 | ±0.00 |

※1 Includes calibration uncertainty by standard capillary type viscometer and uncertainty of homogeneity in the same lot.

※2 Uncertainty of storage stability for 2 years under unopened condition.

The viscosity is calculated from the density measured by pyknometer.

| Temperature(°C) | Density (g/cm ³) |
|-----------------|------------------------------|
| 00.00 | 0.000 00 ±0.000 00 |
| 00.00 | 0.000 00 ±0.000 00 |
| 00.00 | 0.000 00 ±0.000 00 |

Uncertainty of Measurement:

The number following the symbol \pm is the numerical value of an expanded uncertainty obtained by multiplying a combined standard uncertainty by a coverage factor $k=2$. The coverage factor $k=2$ corresponds to a level of confidence of approximately 95% for a normal distribution.