

**Calibration Report n°****MCCXXXXXX\_65664****Issued****08/04/2026****Customer**

Name CUSTOMER  
Address ADDRESS  
ADDRESS  
Country COUNTRY

**Order**

Number 208794 V0

**Instrument**

Type MOONEY VISCOMETER  
Model MOONEYCHECK - Drive  
Producer GIBITRE INSTRUMENTS SRL  
Serial Number MCCXXXXXX

**Calibration**

Date of the measures **08/04/2026**  
Technician **Alan Arsuffi** [Habilitation for Calibration](#)  
**Periodical Calibration**

**Reference Standard**

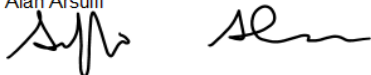
The calibration is made in accordance to the requirements of the following standards:

**ISO 289-1: Rubber, unvulcanized — Determinations using a shearing-disc viscometer — Part 1: Determination of Mooney viscosity**

The measurement uncertainties stated in this document have been determined according to the ISO/IEC Guide 98 and to EA-4/02. Usually they have been estimated as expanded uncertainty obtained multiplying the standard uncertainty by the coverage factor k corresponding to a confidence level of about 95%. Normally, this factor k is 2.

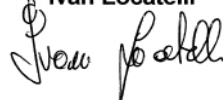
Calibration made by:

Alan Arsuffi



Calibration Report approved by:

Ivan Locatelli



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The measurement results reported in this Calibration report were obtained following the procedures given in the following pages, where the reference standards or instruments are indicated which guarantee the traceability chain of the laboratory, and the related calibration certificates in the course of validity are indicated as well. They relate only to the calibrated item and they are valid for the time and conditions of calibration, unless otherwise specified.

Reference Instruments	Producer	Serial N.	Gibitre Code	Certificate N.	Calibration Laboratory	Issue Date	Due Date	Uncertainty	Unit
PT100 Thermoresistance + Calibrator	Gibitre Instruments srl	C1-T-PTA	C1-GB3-CAL-1 + C1-T-PTA	<a href="#">LAT 128T 141 7 22</a>	ELLAB S.r.l.	25/09/22	25/09/2027	0,05	°C
Chronometer	RS COMPONENTS	GBT.CN.01/13	CRO02 [0-60 s]	<a href="#">LAT 056 23-0199 2023</a>	GAMMA MISURE	09/02/23	09/02/2028	0,10	s
Calibrator + Load Cell 20 kN Compression	Interface + Gibitre Instruments	784097	C1-GB3-CAL-1+C1-F-N20000-Co	<a href="#">LAT 044 F240253</a>	SOCIETA COOPERATIVA BILANCIAI	02/12/24	02/12/2026	0,04	N
Digital Caliper	Mitutoyo	1019218	CLB02	<a href="#">LAT 051 CT-CC-0227-2022</a>	TRESCAL	23/05/22	23/05/2027	0,01	mm
Set of weights 1g - 5 Kg	Sartorius AG	PES01	PES01 [1000-5000 g]	<a href="#">LAT 117 23 M 143 Z</a>	CIBE	20/04/23	20/04/2026	0,00	g
Calibrator + 20 kN Load Cell	Interface + Gibitre Instruments	784095	C5-GB3-CAL-1 + C5-F-KN20-Comp	<a href="#">CAL105 32048</a>	GIBITRE INSTRUMENTS	02/09/25	02/09/2026	11,79	N
PT100 Thermoresistance + Calibrator	Gibitre Instruments srl	C5-T-PTA	C5-GB3-CAL-1 + C5-T-PTA	<a href="#">CAL105 32048</a>	GIBITRE INSTRUMENTS	02/09/25	02/09/2026	0,06	°C
Chronometer + Calibrator	Gibitre Instruments srl	C5-CH-1	C5-GB3-CAL-1 + C5-CH-1	<a href="#">CAL105 32048</a>	GIBITRE INSTRUMENTS	02/09/25	02/09/2026	0,16	s
Digital Calliper	Mitutoyo	A16222743	C5-CL-200	<a href="#">CAL105 32048</a>	GIBITRE INSTRUMENTS	02/09/25	02/09/2026	0,01	mm
Calibrator + 58 N Load Cell	Interface + Gibitre Instruments	C5-HS-1	C5-GB3-CAL-1 + C5-HS-1	<a href="#">CAL105 32048</a>	GIBITRE INSTRUMENTS	02/09/25	02/09/2026	0,01	N
Calibrator + Encoder	Gibitre Instruments srl	160314-1004552	C5-GB3-CAL-1 + C5-EN-1	<a href="#">CAL105 32048</a>	GIBITRE INSTRUMENTS	02/09/25	02/09/2026	0,01	°

**ENVIRONMENTAL CONDITIONS**

Room Temperature	(23 ± 2) °C
Relative Humidity	(50 ± 10) %

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 Calibration of: **Temperature Measurement**

 Sensor Type: **PT 100 Thermoresistance**

Resolution: 0,1 °C

Procedure: The test temperature is set on the instrument. After an adequate conditioning time, the actual temperature is measured with the reference thermometer. The test is repeated 3 times for each temperature tested.

 Reference Standard: **ISO 289-1 Par. 4.4**

Reference Instruments:

**C5-GB3-CAL-1 + C5-T-PTA**

Uncertainty: 0,0603 °C

Deviation 0,84 °C

**Dies Temperature**

Set Value °C	Minimum Allowed °C	Maximum Allowed °C	Calibrator Reading 1 °C	Calibrator Reading 2 °C	Calibrator Reading 3 °C	Mean °C	Accuracy °C	Uncertainty U_ext_95% °C	Outcome
100	99,5	100,5	100,04	100,05	100,04	100,04	0,04	0,974	ok
125	124,5	125,5	125,04	125,02	125,03	125,03	0,03	0,974	ok

 Calibration of: **Temperature Recovery time at test start**

Procedure: After insertion of a test piece at 23 °C ± 0,5 °C, the temperature of the dies shall recover to within 0,5 °C of the test temperature within 4 min. The temperature of the instrument at 4 minutes from test start is recorded.

 Reference Standard: **ISO 289-1 Par. 4.4**

Reference Instruments:

**C5-GB3-CAL-1 + C5-CH-1**

Uncertainty: 0,1618 s

Deviation 0,00 s

Die	Set Value °C	Minimum Allowed °C	Maximum Allowed °C	Instrument Reading after 4 min °C	Outcome
Upper	100	99,5	100,5	100,2	ok
Lower	100	99,5	100,5	100,1	ok

Die	Set Value °C	Minimum Allowed °C	Maximum Allowed °C	Instrument Reading after 4 min °C	Outcome
Upper	125	124,5	125,5	125,0	ok
Lower	125	124,5	125,5	125,2	ok

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Calibration of: **Torque-measurement device**

Sensor Type: Force sensor

Resolution: 0,01 MU **(0,00083 N\*m)**

Procedure: The Mass for auto-calibration and the application Arm are calibrated using the Reference Instruments. Afterwards the torque measured by the instrument is compared with the calibrated torque applied.

Reference Standard: **ISO 289-1 Par. 4.7**

### Calibration of the internal weight

Reference Instruments:

**C5-GB3-CAL-1 + C5-HS-1**      Uncertainty: 0,0087 N      Deviation 0,21 N

Force of Internal Weight N	Uncertainty U_ext_95% N
49,10	0,009

Acceleration due to gravity applied:  $g_n=9,80665\text{m/s}^2$

### Calibration of the Arm of the internal weight

Reference Instruments:

**C5-CL-200**      Uncertainty: 0,0148 mm      Deviation 0,01 mm

Level Arm Internal weight mm	Uncertainty U_ext_95% mm
169,3	0,015

### Calibration of the torque reading of the instrument

Torque Applied (Force x Arm)	Torque Applied (Force x Arm)	Minimum Allowed	Maximum Allowed	Instrument Reading 1	Instrument Reading 2	Instrument Reading 3	Mean	Deviation	Uncertainty U_ext_95%
N*m	MU	MU	MU	MU	MU	MU	MU	MU	MU
8,313	100,15	99,00	101,00	100,00	99,98	99,98	99,99	0,17	0,02

1 MU = 0,083N·m



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C5-GB3-CAL-1 + C5-EN-1

Uncertainty:

0,0144 °

Deviation 0,00 °

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**Verification with standard rubber**

Procedure: At the end of the calibration, tests are performed using Gibitre Standard Rubber to check the working conditions of the instrument. The Results obtained are compared with the reference ones.

Reference Standard: **ISO 289-1 Par. 4.7**

Reference Instruments:  
(IRM)Prepared according to ASTM D4678 \_ Bale n°:3180

Test Conditions:

Temperature **100 °C** Test Time **1+4 min** Rotor **Large**

Result	Unit	Minimum Allowed	Maximum Allowed	Instrument Reading 1	Instrument Reading 2	Mean	Standard Deviation	Outcome
MU (1+4)	MU	76,1	78,1	76,70	76,70	76,7	0,0	ok

Temperature **125 °C** Test Time **1+4 min** Rotor **Large**

Result	Unit	Minimum Allowed	Maximum Allowed	Instrument Reading 1	Instrument Reading 2	Mean	Standard Deviation	Outcome
MU (1+4)	MU	55,3	57,3	55,83	55,85	55,8	0,0	ok



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**Verification of instrument safety devices**

✓	Verification that the instrument's safety devices are working properly
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✓	Final verification that the instrument is functioning properly with safety devices active
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