



Concerned products and equipment

- Temperature recorders
- Thermometers
- Temperature measuring systems
- Temperature Indicators (IT)
- Integrators Time / Temperature (ITT)
- Thermometers dedicated to legal metrology

Standards and technical reference documents

- NF EN 12830 - Comparison temperature calibration
- NF EN 13486 - Measurement verification of temperature and duration of temperature records
- NF E18-100 - Testing and Performance of IT/ITT
- WHO PQS protocols - Category E006 - Performance specification for temperature monitoring devices
- Customer protocols
- Recommendations of the National Order of Pharmacists Board (Depositaries, industries)

Accreditation and recognition

- World Health Organization
 - > Certification according to the PQS repository
 - > Testing and certification for equipment in the cold chain
 - > Approval DIRECCTE - Periodic verification of the thermometers
- Laboratories accredited by COFRAC according to standard ISO 17025



ACCREDITATION N° 2-1863
ACCREDITATION N° 2-1862
PORTEE DISPONIBLE
SUR WWW.COFRAC.FR



ACCREDITATION N° 1-0699
ACCREDITATION N° 1-1695
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- COFRAC accreditation according to ISO 17020 for the periodic verification of thermometers in Legal Metrology



ACCREDITATION N° 3-1558
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Services

- ✓ Calibration and Verification
- ✓ Periodic verification in Legal Metrology
- ✓ Type testings
- ✓ Type certification

Means

- ✓ Thermometers standards
- ✓ Calibration baths and ovens
- ✓ Thermostatic chambers
- ✓ Point of melting ice
- ✓ Chronometers
- ✓ Block equalization

Additional features

- ✓ Temperature measuring range: -80°C to +150°C
- ✓ Temperature measuring range under accreditation: -80°C to +70°C

Test principle

- ✓ The method of calibrating a thermometer is that of the measure by direct comparison of the instrument calibration and working standard thermometer.
- ✓ Verification of duration of the temperature recordings is to ensure that the records of the period conforms to the specifications.



Best uncertainty of the means used

Best calibration uncertainty
0.09 °C (k=2)



WHY CHOOSE CEMAFROID FOR THIS SERVICE?

- ✓ Laboratories recognized by the WHO.
- ✓ Laboratories accredited by COFRAC for Calibration and legal Metrology.
- ✓ Laboratories have received the approval of the DIRECCTE for the verification of the thermometers.
- ✓ Measurement devices connected to the national standard.

Fresnes laboratories

T: +33 1 49 84 84 94 / F: +33 1 46 89 28 79

E: contact@cemafroid.fr

5 avenue des Prés 94260 Fresnes

Cestas laboratories

T: +33 5 56 07 40 00 / F: +33 5 57 89 01 98

E: contact@cemafroid.fr

50 avenue de Verdun 33610 Cestas