Thermal performance tests, measurements of the K coefficient and thermal efficiency

Concerned products and equipment
- Trailers, porters, VUL
  - Isotherms, mechanically refrigerated, cooling, heat
- Refrigerated wagons
- Isothermal tanks
- Marine containers
- Small containers
- Rapid cooling equipment
- Refrigerated display cabinets
- Climatic and thermostatic chambers
- Cold rooms

Standards and technical reference documents
- ATP - Agreement on the International Carriage of Perishable Foodstuffs and on the Special Equipment to be used for such carriage
- Decree No. 91-941 of 23 March 2000 - Vehicles for dead bodies transport
- ISO 1496-2 - Containers
- DIN 1815 - Vans
- DIN 8959 - Insulation of transport equipment
- CERTICOLD Pharma
- Protocols and customer specifications

Accreditation and recognition
- UNECE - ATP official test station
- Laboratories accredited by COFRAC according to standard ISO 17025

Why choose Cemafroid for this service?
- An experience of over 60 years
- The metrology performance is among the highest quality
- Laboratories recognized by the UN
- Tests used in the CERTICOLD Pharma label

Services
- Measuring the heat transfer K coefficient
  The K coefficient is the heat transfer coefficient of a unit or a insulated thermal envelope
- Mesure d’efficacité et de performance thermique
  Efficiency measurement and thermal performance ability to achieve a cooling temperature, and to maintain the temperature regime in the presence of an internal thermal charge

Means
- 6 test tunnels from 87 m³ to 620 m³
- Temperature: -40°C to +55°C
- Humidity: 20 % to 70 % HR
- Anemometers
- Power Meters
- Heaters

Best uncertainty of means used
- Coefficient K: ± 3% (k=2)

Test principle
- K coefficients are measured according to the internal heating method.
- The thermal efficiency of the devices is determined on calibrated calorimeters or equipment that have them.
- Other thermal tests or environment can be made according to standards or specific specifications

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