

CLIMATIC CABINETS



The climatic cabinet is available in two versions:

- **C313N** Temperature and humidity controlled from -30 to +70 °C and 20% to 95% respectively for testing concrete, cement, aggregates and many other applications.
- **C316N** Only temperature controlled from -30 to +70 °C for the determinations of the behavior and resistance to freezing and thawing of aggregates and different other applications on concrete and building materials.

MAIN FEATURES

- Real-Time display of temperature and humidity parameters.
- High quality thermal insulation material.
- Temperature control from -30 to +70 °C with high stability (± 0.15 °C).
- Humidity control from 20% to 95% with $\pm 5\%$ stability and $\pm 1\%$ accuracy (within temperature +10 to +70 °C).

C313N TEMPERATURE AND HUMIDITY CONTROLLED CABINET 535 LITRES CAPACITY

STANDARDS: EN 196-1, EN 1367-1, EN 12390-9

Designed for all research and control laboratories to perform: cold and/or hot temperature measurement at controlled humidity conditions, any kind of freezing/thawing tests and accelerated curing tests. Used to cure concrete and cement specimens and analyze the behavior to freezing and thawing of aggregates and concrete. Internal and external frame is made of stainless steel AISI 304. Polyurethane insulation: 60 mm thick. Internal ventilation.

Door with 180° opening angle, equipped magnetic gasket and integrated heater against freezing.

Shelves can be taken off and adjustable in height; adjustable feet.

Temperature and humidity sensors wall mounted inside cabinet. The cabinet is supplied with a **two stage filter**; mechanic and mixed ionic/cationic resins. It works with demineralized, softened waters, or tap water with hardness rate up to 300 PPM assuring an excellent functioning along the time.

Equipped with microprocessor temperature/humidity controller with integrated cycles multiple segments programmer.

- panel mount 144x130 mm format
- 5" color graphic display
- 50 programs with 100 segments and real time clock
- Logging function with PC interface (optional)

Visual alarm for minimum and maximum temperature

Supplied complete with 3 adjustable shelves suitable to withstand weights up to 40 kg

Inside dimensions: 590x670x1360 mm

Overall dimensions: 710x820x2080 mm

Power supply: 230V 1ph 50-60Hz 2570W

Weight: 170 kg approx.



C313N

C313-01N TEMPERATURE AND HUMIDITY CONTROLLED CABINET 1200 LITRES CAPACITY

Same as C313N model, but with an internal capacity of 1200 liters. Internal ventilation. Door with 180° opening angle, equipped magnetic gasket and integrated heater against freezing.

Shelves can be taken off and adjustable in height; adjustable feet.

Temperature and humidity sensors wall mounted inside cabinet

Visual alarm for minimum and maximum temperature

Supplied complete with 6 adjustable shelves suitable to withstand weights up to 40 kg.

Inside dimensions: 1300x670x1360 mm

Overall dimensions: 1500x820x2080 mm

Power supply: 230V 1ph 50-60Hz 2900W

Weight: 230 kg approx.

Note:

as far the C313N and C313-01N performances, the humidity range indicated in the product description may be narrower vs. the given interval depending on the selected temperature. Please contact our sales team to investigate the suitability for your requirements.

C316N TEMPERATURE CONTROLLED CABINET

535 LITRES CAPACITY

STANDARDS: EN 1367-1

Technical specifications:

Same as mod. C313N, except for the humidity control that is not included.

ACCESSORIES

C313-11N ADDITIONAL BASKET SHELVES : Made of Stainless Steel grid, suitable for loads up to 40 Kg.

C313-12N MOBILE TEMPERATURE PROBE: Type PT100 in stainless steel bulb for free positioning in the chamber and on the specimen.

C313-13N LOGGING FUNCTION: Logging upgrade function for on-board Jumo controller with enabling of "real time trend" and "Historical trend" of variables and predisposition of PC interface.

C313-15N PC INTERFACE: Consist of Cables, PC interface converter and Jumo software for editing and real-time view.

ADHESIVES FOR TILES



DETERMINATION OF TENSILE ADHESION
STRENGTH FOR CEMENTITIOUS ADHESIVES
STANDARDS: EN 1348 | EN 12004

C313-05N INTERNAL FLOODING SYSTEM

Applicable only to temperature and humidity controlled cabinets C313N, C313-01N.

Used for the determination of tensile adhesion strength for cementitious adhesives.

It is composed of two stainless steel vessels and a discharging system for the water.

The system allows to empty and fill the inner vessel with water without opening the climatic cabinet.

Inner vessel water level is limited by a sensor.

Filling and drainage of water are regulated by a valve positioned on the bottom of both vessels.

Inner vessel volume is 150 l, while outer vessel volume is 170 l. Water temperature range is from 10 °C to 40 °C, demineralized water must be used.

Temperature stability: ± 2 °C

Water pressure range is from 0.2 to 5 bar.

Flooding system can be installed also in C313N already supplied if returned in Matest factory.

System must work with no organic compounds.

Outer vessel dimensions:

816x588x600 mm

Weight: 50 kg approx.



C313N + C313-05N



Control panel



Two stage filter