



DILATOMETER



DESIGN AND PRODUCTION OF
INSTRUMENTS AND APPARATUS
FOR QUALITY CONTROL
ON MATERIALS



These instruments are made in
compliance with CE health and
safety requirements



Dilatometer - code 6105.000

The CEAST Dilatometer has been developed to determinate the coefficient of linear thermal expansion of plastic materials. A suitable reading system allow to measure the linear variations in length of the specimens due to heating or cooling. By changing the thermal interval, the determination can be effected on the most differentiated materials.

Standards

Designed and built to meet the following standards:

ASTM D 696

and others equivalent.



Technical Features

- Dilatometer made in quartz, allows you to appreciate, on the reading system, linear variations of: 0,001 mm, interpolable at 0.0005 mm, approx.
- Thermostation in the interval included between: $-100^{\circ} \div +300^{\circ}\text{C}$.
- Support of the dilatometer is built in cadmium plated metal, complete with handgrip and the seat for presentation of the real and true dilatometer
- Dilatometer built in double sheath quartz, having the dimensioning requested by standards, complete with a nickel plated bronze sleeve for its presentation in the above mentioned support.
- Indicating micrometer, of the interchangeable type, suitably presented having bottom of scale divided into thousands of mm, total travel 3 mm; exerting a known pressure conform to the standard limite referred to, on the measuring system.

Integrative Equipment For The Said Dilatometer:

- n. 1 contact plane element, built in "INVAR" alloy, embodied in sheath;
- n. 10 contact elements, in laminated steel, to be presented on the head of the specimen under examination,
- n. 1 outer quartz sheath, suitably dimensioned;
- n. 1 inner quartz sheath, suitably dimensioned.

Thermostatic Cells for the Dilatometer - Code 6105/001

Premises

The thermostatic cells are idoneous to the thermal conditioning of the specimens under examination.

Conditioning takes place through coupling to a distinct thermostatic source, supplying a flux at constant temperature, which permits to thermostat the dilatometer at the wanted regimen temperature, with consequent ΔT .

Technical Features

- Idoneous to a limited thermostation included between: $-100^{\circ} \div +300^{\circ}\text{C}$, in function of the prefixed ΔT .
- Foreseen required thermal limit, included between: $-50 \div +150^{\circ}\text{C}$.

Constructive Characteristics of Each Cell

- Presentation cell of the assembly, in sturdy steel sheeting duly painted with epossidic goffered enamel.
- Cover built in insulating material, with suitably presented servicing seats.
- The real and true thermostation cell is built with a double walled element insulated under vacuum.
- Adequate insulation in respect to the third outer protection wall.
- Seat for the presentation of the dilatometer outer sheath, with oring seal system of the thermostatizing liquid.
- Double nozzle for coupling to the separate thermostatic source mentioned.

Thermostats and Cryostats

Digital Cryothermostatic Bath with stainless steel tank. Temperature range . $-10 \div +100^{\circ}\text{C}$. Code 1263.000

Overall Dimensions

Dilatometer code 6105.000

diameter 200 x 700 mm (h)

weight: 15 kg

Thermostatic Cells code 6105.001

diameter 250 x 750 mm (h)

weight: 13 kg

"Due to the continuous development policy of CEAST's Research and Development Department, changes may be introduced without notice"



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