

HDT / Vicat Testing Instrument

Determination of Heat Distortion Temperature and Softening Temperature of Thermoplastic

Brabender[®]
HDT-Vicat 4U



Brabender

Specification

Brabender® HDT-Vicat 4U

Technical Data

Number of stations:	4
Temperature range:	5°C over RT up to 300°C
Temperature fluctuation:	+/- 0.5°C up to 0.3°C (100 - 250°C)
Deviation:	+/- 0.5°C at 290°C
Heating rate:	50°C/h +/-5°C/h 120°C/h +/- 10°C/h
Mains:	230 V, 50 Hz, 32 A, +N +PE
Dimensions (W x D x H):	1020 x 520 x 690 mm
Weight:	approx. 75 kg

Applications

HDT-Vicat 4U is the universal testing instrument for the determination of Heat Distortion Temperature and Softening Temperature of thermoplastics. It can be equipped with up to 4 testing stations.

The instrument complies with international standards. The HDT method for the determination of the dimensional stability complies with the requirements of ISO 75 part 1 and 2 as well as with ASTM D 648. The Vicat method for the determination of softening temperature fulfills the regulations of ISO 306 and ASTM D 1525.

The compact design assures an easy handling and is available with different grades of automation. In the full-automatic version the HDT Vicat 4 U comes with a station lifting device and is perfectly suited for production quality control, research and development.

The temperature of each testing station (HDT or Vicat) is recorded via PT 100. The heat expansion is compensated temperature-dependent and automatically. The measurement of deflection/penetration for each station is performed by LVDT sensors with a precision of 0.01 mm.

Even during the manual operation no more measuring or calibration means are necessary for the fine adjustment of the measured height. The software determines the zero position for every new test.

Software

Based on Windows®, the k-Base software runs the test control and evaluation through parameter management, recording of results, graphical online-display as well as organization of the data export.



HDT method



Vicat method

Subject to changes of design and technical modifications without notice.

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