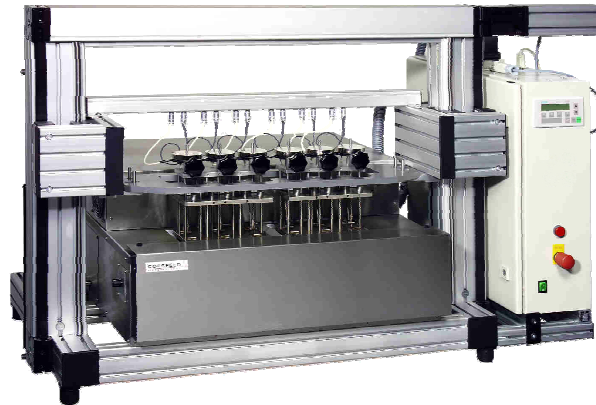




40-190-... IC Vicat/HDT

Standards

ASTM D 648, ASTM D 1525, BSI 2782 (method 120 C), BSI 2782 (method 121 C), DIN 53460, DIN 53461, ISO 75, ISO 306, NT T 51-005, NT T 51-201, UNE 53075, UNE 53118



Application

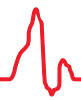
The Coesfeld Vicat/HDT IC series provides test devices for determining the VICAT softening temperature of thermoplastics and the heat deflection temperature (HDT) of fibre-reinforced and filled thermosetting plastics, as well as of thermoplastics and hard rubber.

Features

The IC series provides automatic measuring and with integrated cooling. Depending on the requirements, there are device configurations with 1 to 6 measuring stations. The integrated motorised platform with the optionally extendable weight support lowers the measuring stations automatically into the tempering bath during the tests. After measuring, the integrated high-performance heat exchanger ensures rapid recooling of the bath liquid to the start temperature.

Technical Data

Temperature range	from +20°C ... +300°C
Temperature gradient	50 K/h, 120 K/h or freely selectable
Start temperature	freely selectable
Inductive displacement gauges, resolution	0.001 mm
Inductive displacement gauges, accuracy	better than 0.01 mm
Displacement range	up to 13 mm
HDT support clearance	64 mm, 100 mm, 101.6 mm
Bath volume	approx. 13.7 l (IC/A) / approx. 21.1 l (IC/B)
Creep tests	possible





Dimensions and Connection

	IC/A - up to 3 measuring stations	IC/B - up to 6 measuring stations
Dimensions (WxDxH)	1230 x 710 x 910 mm	1500 x 710 x 910 mm
Weight	approx. 138 kg (without accessories)	approx. 156 kg (without accessories)
Mains	230 V, 50 Hz	230 V, 50 Hz
Power	3000 VA	3000 VA
Interfaces	RS232	
Air	n.a.	
Cooling	integrated high-performance heat exchanger; from 300°C to 23°C in approx. 25 min (depending on cooling water temperature)	
Others	n.a.	


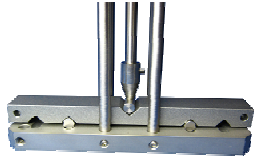
Device configuration

incl.	Articlenumber	Description
-	40-190-001	Vicat/HDT Tester IC 3
-	40-190-002	Vicat/HDT Tester IC 3+
-	40-197-004	Vicat/HDT Tester IC 4
-	40-197-003	Vicat/HDT Tester IC 4+
-	40-197-001	Vicat/HDT Tester IC 6
-	40-197-002	Vicat/HDT Tester IC 6+

Accessories

incl.	Articlenumber	Description	
-	3-897-068	Transformator for Coesfeld devices; 110 V / 5000 W	
-	3-897-065	Transformator for Coesfeld devices; 127 V / 5000 W	
-	40-191	Vicat indenter	
-	40-192	HDT compression fin	
-	40-196	Vicat weights set 10 N and 50 N in accordance with ISO 306 and ASTM D 1525 (1 set required per measuring station)	
-	40-217	HDT weight set ISO 75-2, flatwise; for test samples 4 x 10 x 80mm for bending stresses of 1.8/0.45 or 8 MPa (1 set required per measuring station)	
-	40-218	HDT weight set ISO 75-2, edgewise; for test samples 4 x 10 x 120mm for bending stresses of 1.8/0.45 or 8 MPa (1 set required per measuring station)	



-	40-261	Universal weight set for Vicat/HDT test standards, all loads from 1 to 5500g are possible in 1g steps (1 set required per measuring station)	
-	40-199-001	Automatic weight application device	
-	40-194-001	HDT calibrating and centring tool for aligning the HDT compression fin (1 required per tester)	
-	40-240	Calibrating set for displacement sensor, for VICAT and HDT (1 required per tester)	
-	40-197-MESS	Measuring station, complete (measuring stand, displacement sensor and temperature sensor), for retrofitting to existing IC devices	
-	40-212-006	Heat transfer liquid (silicone oil, 5 l container)	
-	40-212-005	Heat transfer liquid (silicone oil, 10 l container)	
-	60-005-027	Recirculating cooler for Vicat/HDT water cooling (Volume water reservoir 35 l; Cooling output at 25°C water outlet temp. 4.70 kW)	
-	40-213	Nitrogen cover for additional cooling for IC devices	
-	40-201	Cutting pincers for 10x10 mm Vicat specimen preparation	