



40-197-... Vicat/HDT Compact

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, ISO 2507, NT T 51-005, NT T 51-201, UNE 53075, UNE 53118



Application

The Coesfeld Vicat/HDT Compact are 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

Compact series devices are semi-automated, computer-controlled systems. Depending on requirements, the devices can be equipped with up to 6 measuring stations. During the automated test sequence an integrated motorised platform lowers the measuring stations with the manually fitted weights into the test bath. The cooling water connection, which is fitted with a magnetic valve, can be extended optionally with an external oil heat exchanger system.

Technical Data

Temperature range	from +20°C ... +300°C, resolution ± 0.1 K
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 15 mm
HDT support clearance	64 mm, 100 mm, 101,6 mm
Bath volume	approx. 13.3 l / approx. 20.2 l heat transfer oil (up to 3 / 6 measuring stations)
Creep tests	possible







Dimensions and Connection

	A - up to 3 measuring stations	B - up to 6 measuring stations
Dimensions (WxDxH)	600 x 660 x 470 mm	720 x 660 x 470 mm
Weight	50 kg (without accessories)	65 kg (without accessories)
Mains	230 V, 50 Hz / 240 V, 60 Hz	230 V, 50 Hz / 240 V, 60 Hz
Power	3200 VA	3200 VA
Interfaces	RS232	
Air	n.a.	
Cooling	Water cooling (from 150°C to 23°C in approx. 90 min.); optional: external heat exchanger (from 300°C to 23°C in approx. 25 min.)	
Others	n.a.	




Device configuration

incl.	Articlenumber	Description
-	40-190-103	Vicat/HDT-Tester Compact 2
-	40-190-100	Vicat/HDT-Tester Compact 3
-	40-197-101	Vicat/HDT-Tester Compact 4
-	40-197-100	Vicat/HDT-Tester Compact 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 (1 required per measuring station)	
-	40-192	HDT compression fin (1 required per measuring station)	
-	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 load application for Compact series	
-	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)	
-	40-212-006	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)	
-	9-944-019	External heat exchanger for Vicat/HDT Compact Test Device	
-	40-201	Cutting pincers for 10x10 mm Vicat specimen preparation	