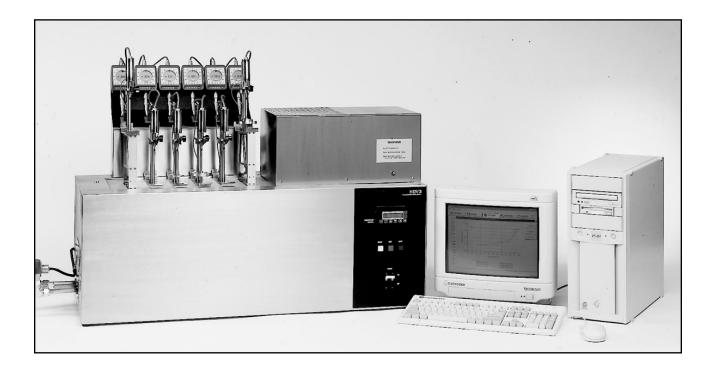
HDT/VICAT SYSTEM HDV₃



DESCRIPTION

The HDV3 HDT/VICAT System is designed for testing ease using the sophisticated technology of Windows-based software. Utilizing the Windows operating system, the HDV3 control and analysis software offers easy setup, operation, analysis and calibration. The Windows-based software offers testing for two to six stations on multiple HDV3 systems.



Set Up

The simple setup page allows the operator to run either industry defined or custom defined test methods. The ASTM D648 and D1525, as well as, ISO 75 and 306 test methods are programmed into the software. When using one or more of these tests, the operator only needs to select the test method and all other specifications appear automatically. The software is capable of performing any combination of HDT or VICAT tests, provided that temperature rise rates for the bath are identical for the different tests. The software also calculates exact specimen loading based on specimen dimensions. Simple and precise, the software provides fool-proof test setup.



Analyze

While in analyze mode, the user can view a combination of stations for both graphical and statistical analysis.

Four different report detail selections are available: test report, deflection vs. temperature, temperature vs. time (useful for verifying rise rates) and a long report logging every data point.

For hard copy files, the user is able to print any of these four reports. The full test report provides stationby-station specimen information including specimen loading, failure temperatures, rise rates and statistical data.

monitor	🔛 setup		analyz	e D	C calibrate	System
Data File (C:\HDV\d Test Data	lata\r120hdv3-202	l.dta	J		Temperatures C°F €°C	Open File
Test Procedure DTUL - ASTM D648 System Name HDV Unit #1 Dperator HF 1186		-	Date/Time 08/15/1997 6:06 a.m. Start/Maximum Temp (°C) 30 305 Bamp Rate (°C/hour) 120			Save As
	Medium DOW CORNING 200			Print Report		
Specimen Data Specimen ID	Include	Deflection Temperature (°C)	Stress Level .[kPa]	Width [in]	Thickness/ Depth [in]	Print Details
SAMPLE #1 SAMPLE #2	ঘ	0.0	66 66	0.118	0.492	Deflection vs. Temp.
SAMPLE #3 SAMPLE #4	<u>य</u>	0.0	66 68	0.118	0.492	Temperature vs. Time
SAMPLE #5 SAMPLE #6	ঘ	0.0 0.0	66 66	0.118	0.492	
Test Statistics and No Avg. Defl Temp(*C)					l end of ramp • 🔺	

The Analyze Menu

Test

Once a test has been setup and initiated, it will proceed automatically through the start delay, ramping to the test start temperature, initialization of the digital gauges and display of a bar graph of test progress. In order to identify and eliminate test anomalies, the HDV3 system possesses powerful graphing capabilities. This feature removes the difficulty of discriminating small differences in material performance that would otherwise get lost in a single numerical end point. The graphing ability provides a quick and precise visual indication of performance to each specimen.

CALIBRATE

The HDV3 calibration function offers the ability to correct for test frame distortion at high bath temperatures. This simple frame calibration procedure is optional, and suggested if the material failure point is below 190°C. The system will automatically incorporate calibration file values in test result calculations to provide the most accurate test data for high temperature tests.

monitor	setup	🖉 ana	analyze C c		System
Calibration File Lest Data	HDV Um #1.cal				Open File
System Name	HDV Unit #1		Ramp Rate ("C/hor	af 50.	L
Operator			Start Temp (*C)	30	New Calibration
Bath Medium					
Notes: System g	generated file with defau	ult values. A	Date		Save
		T	Time	3.56 p.m.	
Station Data					
Station 1	Station 2	Station 3	Station 4	Station 5	Station 6
	Offset (mm)		Offset (mm)		Offset (mm)
30 to 50 (*C)	+0.000	170 to 190 (°C)	+0.000	310 to 330 (°C	+0.000
50 to 70 (*C)	+0.000	190 to 210 (°C)	+0.000	330 to 350 ("C	+0.000
70 to 90 (*C)	+0.000	210 to 230 (°C)	+0.000	350 to 370 ("C	+0.000
90 to 110 (°C)	+0.000	230 to 250 (°C)	+0.000	370 to 390 (*C	+0.000 .
10 to 130 (°C)	+0.000 ,	250 to 270 (°C)	+0.000	390 to 410 ("C	+0.000
30 to 150 (°C)	+0.000	270 to 290 ("C)	+0.000		
50 to 170 (°C)	+0.000	290 to 310 (°C)	+0.000		



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