

## B-Timing Plate according to DIN 16 916 and DIN EN ISO 8987



*B-Timing Plate*



*Temperature-Controller TCT-1  
with Stopwatch and Surface Sensor Input*

B-time determination on the B-Timing Plate provides information on the curing behavior of resins capable of heat-hardening, namely the reaction time at a given temperature after which resins (solid, liquid, or solvent-containing resins of a known concentration) change to the B-state.

This B-Timing Plate according to DIN 16 916 and DIN EN ISO 8987 is mainly used for

- **Phenolic resins**

Our standard B-Timing Plate has four depressions in the heating plate, accepting one sample each. Plates without depressions are also available.

The temperature is precisely controlled with our temperature controller TCT-1 with integrated Stopwatch.

### Measuring Procedure

The B-Timing Plate has to be protected against draughts with a cabinet open to one side.

Place **resin sample of 500 mg** in to a depression on the plate and start the stopwatch. Use a tapered glass rod ( $\varnothing$  3 mm, reduced to  $\varnothing$  2 mm at one end) to impart short circular stirring motions to resin, directed from edge to center of the depression. In case of extended B-times, stir for one minute, followed by 10 seconds of stirring, spaced at one-minute intervals.

Stir constantly when resin gets a tougher consistency toward the end of the test. Pull out glass rod briefly to check if resin is still stringy. The B-point is reached when no strings result as the rod is pulled up and the resin tears off in a rubber-like fashion. Stop the watch at this stage and read elapsed time. Indicate elapsed time in minutes and seconds. Record testing temperature at which test has been done.

### Principle

The condensation of the phenolic resin is carried out the B-stage on one of the two types of test plate, depending on the method.

## Technical Data

### B-Time Plate

with 4 depressions, method A	Art. No. 200.40.01
without depressions, method B	Art. No. 200.40.02
Voltage	115 VAC or 230 VAC, 50/60 Hz
Power	160 W
Dimensions	Ø 220 x 80 mm
Weight	~ 7.1 kg

### Temperature-Controller TCT-1 with Stopwatch

TCT-1	Art. No. 200.41.01
Voltage	100 ...240 VAC, 50 / 60 Hz
Power	200 VA with connected B-Timing plate
Connections	8 Pin Binder plug, power line and sensor
Sensor	Pt100, EN60751
Temperature range	30°C ... 200 °C
Accuracy	± 0,5°C
Additional Sensor	1 x Thermo connector type K, EN 60584, for the surface temperature
Main switch	on the back side
Fuses	2 pcs, 5 x 20mm size, Type F3,15A L250 VAC
Dimensions	257 x 271 x 103 mm
Weight	~ 3.1 kg
Electrical conformity	EMV 2014/30/EU, EN 61010-1:2010, EN 61010-2-010:2014, EN 61326-1:2013

### Integrated Stopwatch

Range	0 ... 99H:59M:59S
Accuracy	± 1Second / 2 Hours



### Order numbers

B-Time Plate with 4 depressions	Art. No. 200.40.01
B-Time Plate without depressions	Art. No. 200.40.02
Temperature Controller TCT-1	Art. No. 200.41.01
Thermocouple type K	Art. No. 200.41.32

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**The devices are supplied with an electrical test and a factory calibration certificate.**

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