

HEATING BLOCK PL



HEATING BLOCK PL ACCORDING DIN 55 990

GEL TIME DETERMINATION OF POWDER COATINGS

According to DIN 55 990, the gel time of powder coatings is the time required to melt a specimen at a laid down temperature, using a specific test apparatus, and to achieve a gel - like consistency.

For the determination of the gel time of powder coatings, our **Heating Block PL** in accordance with the German Standard **DIN 55 990** (ref. 30.45) with a spherical depression (mould) is used.

The temperature is precisely controlled with our temperature controller TC-3 (Ref. 70.05).

TEST PROCEDURE

The Heating Block is heated to the agreed test temperature, preferably 180 °C (but other temperatures suitable for the specimen can also be used), but the value selected should be an integer multiple of 10. 200 mg of the specimen material are put into the depression of the heating block.

Simultaneously, a stop watch is started and the specimen is stirred steadily until a gel-like consistency is achieved. The end point is reached when by sudden withdrawal of a glass rod (approx. 20 mm upwards), the "string" of material that is picked up, tears, or when the generally globular specimen breaks away from the surface of the mould.

The stop watch is stopped and the time in minutes and seconds is read off. To test or to calibrate the temperature of the mould in the Heating Block GT, melting salts are employed (e.g. temperature indicators of MERCK).

TECHNICAL DATA

Heating Block PL acc. DIN 55 990	Ref. 30.45 incl. Pt100-Sensor
Main power supply	230 V / 50 Hz or 115 V / 60 Hz, $\pm 10\%$
Heating power	500 W
Temperature Controller TC-3	Ref. 70.05
Melting Salts	Various e.g. 140 – 180 °C