

Heat Deflection Temperature (HDT)



Principle

"Heat deflection temperature" can be defined as the temperature at which a standard test sample deforms (bends) under a predefined load.

Applications

- Determination of the resistance to deformation at certain temperatures
- Comparison of the resistance to temperature of different materials
- Standard: ISO 75

Method

A test sample of 80 x 10 x 4 mm is introduced in the test apparatus.

In function of the chosen method, the sample is subjected to a load of 0,45; 1,8 or 8 MPa. This is then placed in an oil bath that is heated at constant rate (120°C/h), until a certain deflection occurs. (the deflection depends on the material/dimension)

