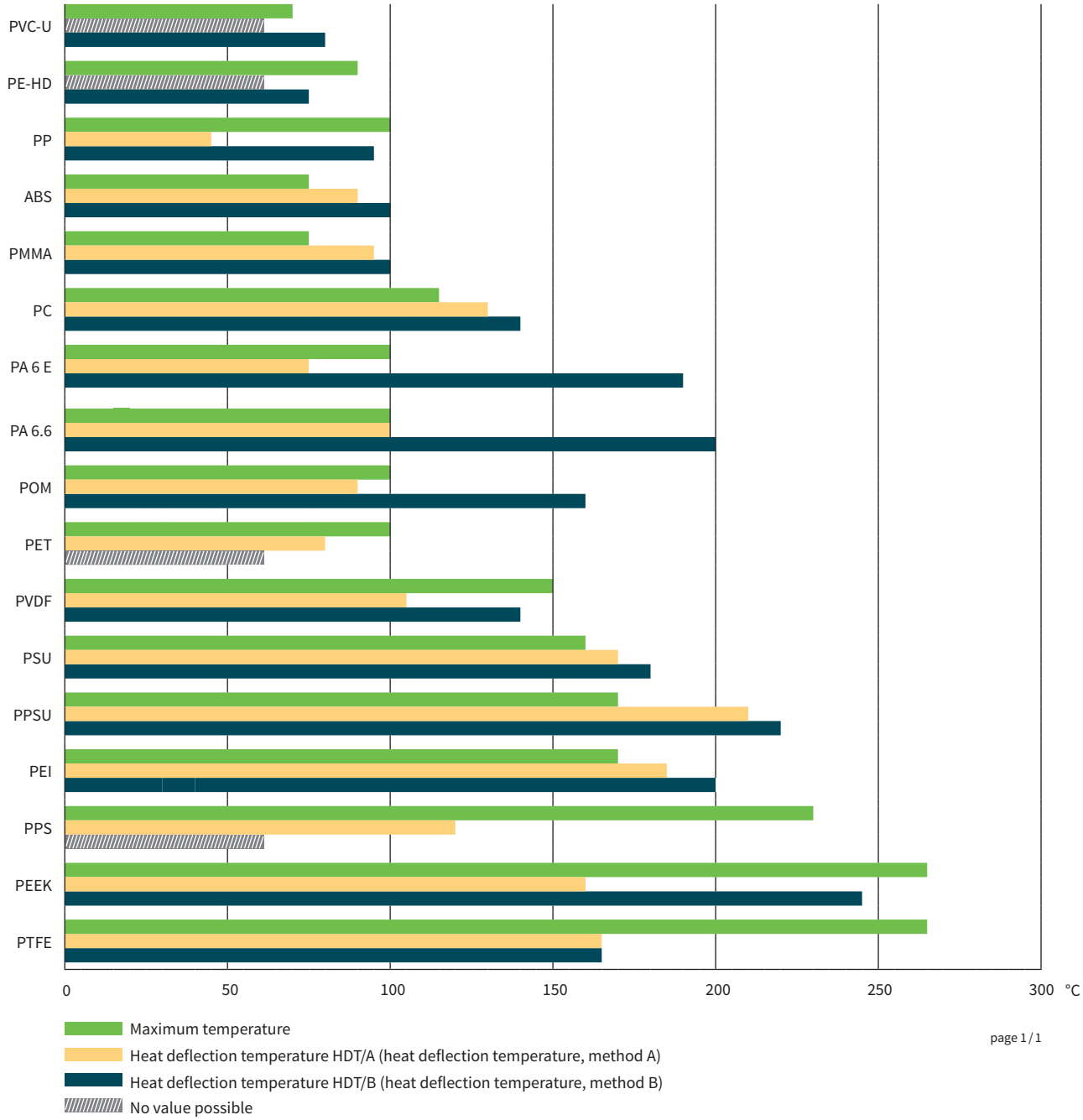
Technical Information

Thermal reference values

DIN EN ISO 75-1,-2,-3 provides a general test procedure for the determination of the Heat Deflection Temperature (HDT) of plastics under stress (bending stress under three-point-load). Standard samples in form of a rectangular cross section are tested, in most cases parallel flats are subjected to a three-point bend under consistent stress. This is to create outer fibre tension which depends on width and height of the sample and the distance between supports.

Depending on the height of the test sample a specific force is applied by use of weights or/and springs in order to reach a tension of 1.80 (method A), 0.45 (method B) or 8.00 N/mm² (method C). Then the stressed samples are heated at a constant heating rate of 120 K/h (or 50 K/h).
If the deflection of the sample reaches an outer fibre strain of 0.2 % the temperature related to it is the heat deflection temperature (HDT).



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