

# DECISION SHEET

<b>Standard(s)- (year and edition):</b> IEC 60601-1:1988 Ed.2 Am1+Am2	<b>Sub clause(s):</b> 42.1, 42.2, 42.3	<b>Sheet n°:</b> <b>DSH-408</b>
<b>Subject:</b> Temperature test conditions	<b>Key words:</b> Test conditions, ambient, Xa, Xb	<b>Confirmed by CTL at its 39<sup>th</sup> meeting, in Cologne</b>

**Question:**

The manufacturer could specify higher ambient temperatures than 25°C. Should this influence the test conditions?

**Decision:**

Table Xa gives the permissible temperature of materials for an ambient temperature of 40°C. Table Xb gives the permissible temperature of materials for an ambient temperature of 25°C. Tests will be conducted at ambient temperatures in the range 10°C to 40°C. The measured temperature obtained must be corrected for an ambient temperature of either 40°C (Xa) or 25°C (Xb). These corrected temperatures are used for comparison with the allowed maximum values for materials in tables Xa and Xb.

The table below gives examples of tests carried out at 35°C and the results of corrections.

Parts	Ambient°C	Measure value at ambient	Corrected value for 25°C ambient	Corrected value at 40°C ambient	Allowable values listed in
listed in Xa	35	130	xxxxxxxxxxxxxxxxxxx	135	Table Xa
listed in Xb	35	110	100	xxxxxxxxxxxxxxxxxxx	Table Xb

**Explanatory notes:**

The tests for 4.2 are carried out at the prevailing ambient temperature, and the test results corrected to determine the temperature which would have been reached had the ambient temperature been 25°C.