

CTL DECISION SHEET (DSH)

Standard(s) (incl. year)	Subclause(s)	Tracking No.	Year
IEC 60335-2-6:2014 /AMD1:2018	21.101	2151	2019
Category			
HOUS			
Subject	Keywords	Developed by	Approved at
Mechanical strength test on withdrawable shelves of ovens	<ul style="list-style-type: none"> - Measurement - Shelf - Oven 	ETF 1	2020 CTL Plenary Meeting

Question

In the 7th - 9th paragraph of 21.101, it is specified as follows;

Ovens with withdrawable shelves fitted with stops or a rest position are then tested as follows.

The shelves are fully extended to the maximum distance allowed by the stops or a rest position. An evenly distributed force as specified in Table 105 is applied to each shelf, at locations along the front edge of the shelf, using a vessel having side dimensions of Table 105, one side of the vessel being aligned along the front edge of the shelf.

During this test, the shelf shall not tilt downwards by more than 6°

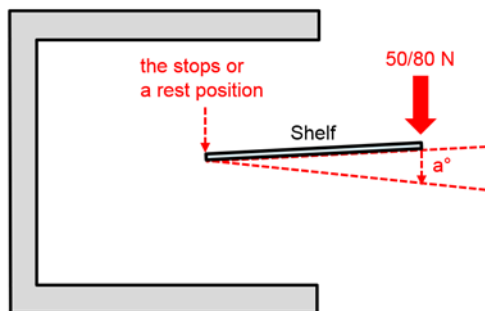
How is this angle measured?

Decision

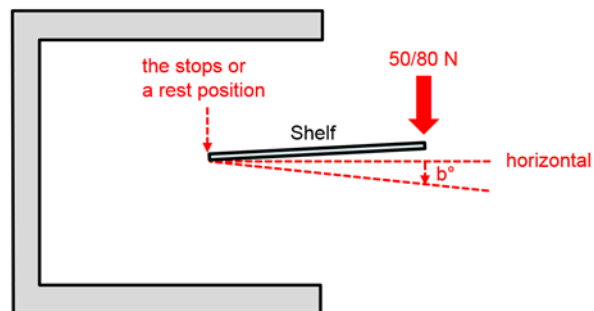
The tilting angle is to be measured between the unloaded position and the loaded position of the shelf (refer to Fig. 1 of Explanatory Notes). This means that only the change of the position is measured.

Explanatory notes

When the shelf is loaded, it will be in the tilted down position. There are different views about the reference position of the tilting angle measurement as illustrated below:



<Fig. 1>



<Fig. 2>

Fig. 1 depicts the measurement using the unloaded position of the shelf as the reference position for measuring the tilting angle a° .

Fig. 2 depicts the measurement using the horizontal position of the shelf as the reference position for measuring the tilting angle b° .

The measurement according to Fig. 1 determines the tilting angle a° due to the applied mechanical load only, which serves as an indicator of the mechanical strength of the withdrawable shelf.

The measurement according to Fig. 2 determines the tilting angle b° between the horizontal position and the loaded position of the shelf. Its value is dependent on the angle due to the applied mechanical load and on the angle of the unloaded shelf with respect to the horizontal position.

Apart from the fact that the standard does not mention a horizontal position of the shelf, the angle b° in Fig. 2 is not dependent on the mechanical strength of the construction alone, but also on the unloaded position of the shelf.

The decision is based on the comment from TC61 Shanghai meeting held on October 2019.