

EN 1335-1:2020: towards the solution of some critical points

Arianna Visintin

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Who already used the new version of EN 1335-1 for dimensional requirements of office chairs, knows that this standard is more complex and difficult in comparison to the previous edition.

We soon observed that by the application of the new version, a relevant number of samples did not comply with it. The most critical point was in particular represented by the measurement of the height of the lumbar support.

This criticality therefore had to be faced given the complexity of the new standard which provides for a fully revised method of measurement compared to the previous version and in some aspects even unclear. CATAS therefore immediately activated at European level, taking part in a common commitment to define a single line to follow that would maintain the necessary precision but without penalizing office seating manufacturers. At the moment it has already been decided to test the chairs following some interpretative criteria defined together with the other European laboratories. These clarifications, which CATAS has already implemented in its procedures, will in any case

be proposed in the next CEN meetings during which the revision of some other aspects of the standard that need to be better defined is already foreseen.

In fact, a few months after the publication of this document and its adoption, which took place in Italy last September, some changes are already going to be introduced with a specific “amendment”.

In the sector of the office seating, CATAS has always been on the front line. In addition to its role as an internationally recognized test laboratory, it is also one of the few European manufacturers of the CMD (Chair Measuring Device), a measuring dummy used to take measurements, and of the hoist used for lifting and positioning the CMD on the seat. Catas was also the promoter of the introduction in the new EN 1335-1, the first case of a European standard in the sector, of the so-called “decision rule” relating to measurement uncertainty.

The decision rule defines in advance how the effects of the measurement uncertainty on the conformity judgment must be taken into account.



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The importance of the comparison.

Speaking about the method of measuring office chairs dimensions, European laboratories are well aware of the great variability of interpretation and of the potential discrepancy of results. For years Catas has been a promoter of the use of statistical data as at the base of the decisions taken at the standardization tables and for this reason in the past we have already arranged two interlaboratory tests on the measurement methods, in particular a European one in 2012 on the method of the previous EN 1335-1 and one in 2015 on the method introduced by ISO 24496: 2017. From the data obtained and compared with those obtained from a similar study carried out overseas it was possible to define the uncertainty limits included in the ISO 24496: 2017.

During 2020, we completed the work of a third interlaboratory study at European level on the new EN 1335-1 method. This study was “collaborative”, that is, it had the main scope of estimating the uncertainties associated with the measures provided by the method. In any case, from the analysis of the results it is possible to obtain information about the “performance” of the participating laboratories.

The study involved 12 European laboratories from 9 different countries. 4 office chairs from four manufacturers were sent sequentially to the laboratories for repetition of the measurements. The chairs traveled for 12 thousand five hundred km in the period from November 2019 to July 2020. Catas managed the organization of the circuit from all points of view: logistics, instructions for participants, web platform for data collection and anonymization, statistical analysis and drafting of the final report. The results were presented both at the European level and at the American BIFMA.

And precisely in the context of these last important standard changes, CATAS Academy proposes two new webinars in order to update and inform the companies operating in this sector. Both the scheduled events will be held in Italian language, but English editions are going to be planned too.

- **Thursday 18 March, at 2.00 pm**, we will talk about the new EN 1335-1 standard, with a technical focus precisely on the “hot” points that emerged one year after its entry into force.
- **Thursday 8 April, at 2.00 pm**, we will talk about measurement uncertainty and “decision rule”: which information and value they add to the evaluation of the sample tested in the laboratory.

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