

Hear for Life

Regulatory updates – EN 352:2020

Technical bulletin



What is EN 352?

EN 352 is a family of standards, which include performance requirement standards and test methods for covering many types of hearing protectors including passive and electronic hearing protection devices.

These standards are developed by the European CEN/TC159 Hearing Protection Technical Committee and adopted by each EU Member State. They are mandated by the European Commission and once published in the official journal of the European Union, manufacturers typically comply with these standards before commercialising hearing protection products in Europe.

These standards are science based and provide a uniform basis for evaluating hearing protection products from various manufacturers. The products certified to EN 352 are independently tested by an accredited laboratory and are CE approved by one of the EU Notified Bodies.

As hearing protectors help reduce exposure to harmful noise and thus fall within the highest risk Category III within the PPE Regulation 2016/425 (EU), they are subject to the mandatory annual audit by an approved Notified Body.

This process helps ensure that the products are regularly monitored to verify conformity to the appropriate EN standard and the PPE Regulation 2016/425 (EU) adding confidence to the user that the product will help protect against the intended noise hazard.

Did you know EN 352 has been updated?

All European published standards are subject to a 5 year periodic review.

They are either reconfirmed for another 5 years or revised based on test laboratory and field experience to ensure they are still relevant and reflective of the current market offerings and/or emerging technologies, usage etc.

The latest revised standards within EN 352 can be recognised by the new publication date e.g. EN 352:2020.

For revised standards, there is a period of adoption during which products meeting the prior standards can continue to remain in the supply chain. In the case of the new EN 352 family of standards the adoption period would have ended on 21 January 2023. However, the CEN/TC159 Technical Committee successfully appealed for 18 months extension period to allow sufficient time for all stakeholders to adopt the new standards. Taking the new extended period into consideration, new products launched on the market after 21 July 2024 will need to fully comply with the revised 2020 version of the standard. However, existing products already on the market and supported by a valid CE certificate against

the previous version of the standard remain acceptable so long as the CE certificate does not expire before 21 July 2024. Please contact your local regulatory or notified body to understand any local regulatory or import controls.

Do I have to do anything regarding the EN 352 update?

The action is primarily on the manufacturer, as all products will need to be tested, certified and marked against the updated standards.

There is no mandatory action for the end customer or the person who buys the product.

It is, however, recommended that the purchaser check that any product produced after 20th January 2023 shows the correct year of publication of the standard e.g. conformity to EN 352:2020 for headband earmuffs. The referenced standard/s can be found on the Declaration of Conformity (DOC) or in the user instructions.

You should also check the product to ensure you are aware of any performance claim changes, potentially resulting from these updates.

Why is EN 352 it being updated?

As discussed above, all European Harmonised Standards are subject to a mandatory five-year periodic review whereby they are either reconfirmed for a further five years or undergo revision. In the case of the EN 352 family of standards, the decision taken by the European Technical Committee CEN/TC159 was to revise all relevant parts of this family of standards. One of the key changes of the updated standards was to encourage manufacturers to commercialise products that are better suited for workers exposed to low/moderate noise levels without resulting in isolation or over-protection.

This is a key reason why the conformity assessment has been changed from meeting minimum octave band test frequencies ranging from 125 Hz to 8000 Hz.

The new conformity assessment is based on meeting the minimum value of High (12), Medium (11) and Low (9) frequencies, based on mean minus 1 standard deviation. In addition to the new conformity assessment, the SNR data is also reported based on mean minus 1 standard deviation.

The table below is an example of an octave/HML and SNR table under EN 352:2020.

Frequency (Hz) <i>f</i>	125	250	500	1000	2000	4000	8000	H	M	L	SNR
A:2 MV (dB)	13.3	17.4	22.3	28.0	30.8	37.6	37.0	31.8	25.0	19.1	27.7
A: 3 SD (dB)	3.2	1.8	2.3	3.2	3.4	2.8	4.8	2.0	1.3	1.7	1.2
A: 4 APV = MV - SD (dB)	10.1	15.6	20.0	24.8	27.4	34.8	32.2	30	24	17	27

: 303g H=35dB M=27dB L=18dB

Is it just lower attenuating products which are being tested?

No, all products are being re-tested and re-certified to the new standard, as supported by the manufacturer’s new technical file documentation.

Is the test procedure changing?

No, the test signals, the number of test subjects (16) and the way the test is done remains the same. However, there is a difference in computation and the way in which results are reported.

How is the reporting different?

These mean values and standard deviations will be included with both SNR and HML data.

The table below is an example of the 3M™ PELTOR™ ProTac Headsets performance.

Frequency (Hz) <i>f</i>	125	250	500	1000	2000	4000	8000	H	M	L	SNR
A:2 MV (dB)	13.3	17.4	22.3	28.0	30.8	37.6	37.0	31.8	25.0	19.1	27.7
A: 3 SD (dB)	3.2	1.8	2.3	3.2	3.4	2.8	4.8	2.0	1.3	1.7	1.2
A: 4 APV = MV - SD (dB)	10.1	15.6	20.0	24.8	27.4	34.8	32.2	30	24	17	27

: 303g H=35dB M=27dB L=18dB

Does this change the performance of the product?

Since real ear attenuation at threshold (REAT) testing is based on a panel of 16 human subjects, there is inherent variability in this type of subjective measurement.

Therefore, even for the same test panel, repeat tests may not produce the exact same values.

As such, there may be differences in the overall measured values, which are often within the acceptable tolerance limit for repeatability and reproducibility as detailed in the subjective measurement standard EN ISO 4869-1:2018.

In short, even if the product has not changed at all and there is no change to the test procedure, there may still be a change in the performance claims of the products when they are re-tested.

Check the product markings and performance claims when certified to the new standard to ensure the current performance of the product as assessed under relevant part of EN 352:2020 family of standards meets your needs.

How can I find the SNR and HML performance of European Certified 3M Hearing Protection products?

This information is included on the products’ user instructions and product packaging.

Who do I speak to if I want to learn more?

3M has a team of dedicated hearing technical and regulatory specialist around Europe ready to assist you. Please contact your local 3M representative for more information.

You can also refer to the up-to-date version of the European Guidance Document EN 458 On Selection Use, Care and Maintenance of Hearing Protectors.

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