	CO-ORDINATION OF NOTIFIED BODIES **PPE Regulation 2016/425** **RECOMMENDATION FOR USE**	PPE-R/09.022 Version 1

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Article: Annex: Clause: EN 1621

Key words: Impact protectors with small holes and hydrolysis

Question:

The impacts performed after the hydrolytic conditioning in the EN 1621 series are intended to verify that the material (PU) maintains its performance over time (transport in containers, storage at high temperatures and humidity).

In the case of impacts performed on protectors with 3d shapes with small holes (approx. 1/4 mm, less weight/more breathability) the results are usually very bad.

The reason is not in the material but in the shape of the product: the holes trap water drops by capillarity.

In fact by eliminating the drops of water, the results of the impact tests can be very good (if the material is good of course).

How to manage these cases?

Solution:

The hydrolytic treatment was intended to eliminate poor materials from the market. after 72h of treatment, the protectors are cooled to room temperature inside a plastic bag to maintain humidity.

If the results of the impacts are negative because the drops of water remain trapped inside, it is not a problem of material but of the shape of the protector (which on the other side has an increased breathability and a better flexibility/ergonomics and lower weight).

If the impact results after removing the drops of water are OK, the test is considered pass.