



MEETING LOG

SUBJECT: ASTM F15.12 Methods for Measuring Rebreathing Task Group

FY 25 OP PLAN ENTRY: Infant Bedding

DATE OF MEETING: 1/14/2025

LOCATION OF MEETING: Virtual

CPSC STAFF FILING MEETING LOG: Ashley Johnson (HSPP)

FILING DATE: 1/15/2025

CPSC ATTENDEE(S): Ashley Johnson (HSPP), Tim Smith (ESHF), Suad Wanna-Nakamura (HSPP), Brad Gordon (ESMC), Daniel Taxier (ESMC)

NON-CPSC ATTENDEE(S): Contact ASTM for the full attendee list

Summary of Meeting:

The subject Task Group (TG) is developing test methods to measure firmness, airflow, and carbon dioxide (CO₂) re-breathing for infant products.

The TG chair began the meeting by explaining that the most recent draft (26.4) of the Standard Test Method for Firmness of Soft Infant Products- Test Stand Method document, and the most recent draft (12.4) of the Standard Test Method for Airflow Resistance of Infant Products document, will be sent out for ballot soon.

The TG discussed the evaluation of the handheld method for firmness testing (that can be used on seated products). Labs that are participating in this testing reported to the TG that their evaluations are now complete, and the data has been sent to the Handheld TG. The TG chair explained that this data will be reviewed and analyzed by interlaboratory study (ILS) 1979.

The TG next discussed the status of ILS 1887 for the test stand method for firmness testing (that can be used on nursing pillows and infant loungers). The ILS consists of a pilot run study on flat foam and a full repeatability and reproducibility (R&R) study using nursing and lounging products. The TG chair stated that materials have been sent to 14 labs for the pilot run study, and 10 labs have completed the pilot run and sent results. For the R&R study, four products have been sent from lab 1 to lab 2.

Finally, the TG reviewed a video that was sent out to the TG, which showed airflow and CO₂ rebreathing testing on a rocker surface both with and without various fabric materials placed on top of the rocker surface. The TG discussed how the material layer affected airflow resistance and gas exchange, the ease of using various material for product design, and possible consumer perceptions of materials. The TG also discussed products (and characteristics of products) that may not be able to pass a firmness test and the feasibility of instead having to pass an airflow or rebreathing test.



Before the meeting ended, the TG chair explained to the TG that a paper on breathability regarding airflow and the scientific basis for understanding the work of breathing has been published and was sent to the TG for review.

Next Steps:

The TG will continue discussing draft firmness, airflow, and CO₂ re-breathing test methodologies at the next meeting. The next meeting is expected to take place on January 28, 2025.