

SUBJECT: ASTM F15.19 Methods for Measuring Re-Breathing Task Group

FY 23 OP PLAN ENTRY: Infant Bedding

DATE OF MEETING: 3/12/2024

LOCATION OF MEETING: Virtual

CPSC STAFF FILING MEETING LOG: Ashley Johnson (HSPP)

FILING DATE: 3/15/2024

CPSC ATTENDEE(S): Ashley Johnson (HSPP), Suad Wanna-Nakamura (HSPP), Tim Smith (ESHF), Daniel Taxier (ESME), Frederick DeGrano (ESME), Zachary Foster (ESHF), Jaqueline Cambell (EXHR)

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 an ASTM Interlaboratory Study (ILS) has been initiated for the Firmness Test Method (ILS 1887, Work item 84613). Currently, the TG chair is working to finalize participant laboratories, samples, and the test procedure. The test plan includes testing and reporting results of three foam samples, each with a different expected level of firmness. Multiple parties will participate, including CPSC staff. The TG chair stated that the goal is to complete the ILS as soon as possible. The F15 chair shared that this will be an Ad Hoc group under the Infant Bedding Subcommittee, with the TG chair as chair, and relevant juvenile product subcommittees will be invited to join. A representative from the ASTM ILS department was present at the meeting to answer TG member questions. The representative explained, after a TG member question, that an ILS can take place before or after the publication of a test method. An ILS can be initiated with a draft test method that is not yet published, but the resulting precision and bias statement can only be balloted for inclusion and published if there are no modifications to the test procedure. Otherwise, the test method will be balloted again. The representative also explained, after a TG member question, that the objective of the ILS is to conduct a preliminary study to determine repeatability and reproducibility of the draft Test Method and, for an initial ballot, only a single laboratory is needed for repeatability and reproducibility testing.

The TG Chair then explained that the most recent Standard Test Method for Firmness of Infant Products ballot closed on January 18, 2024, and two negative votes remain. The TG reviewed Draft 23 of the Firmness Test Method, with incorporated revisions marked in red, and a repeatability and reproducibility statement drafted by ASTM ILS Department also marked in red. The TG then discussed a proposed exemption from firmness testing, and the rationale, for products less than 1 inch in thickness. During the discussion, the ASTM Infant Loungers TG chair stated that the Infant Loungers TG discussed this topic and concluded that a separate test method would be required to determine thickness of a product, because a product could either vary in thickness within the product or be so close to 1 inch in thickness that it would be difficult to determine thickness without testing. The TG decided not to include an exemption for products less than 1 inch in thickness in the draft document, as the current draft already addresses cases where the probe will not displace 1 inch. The TG also decided that specific product standards could specify an alternative. One TG member asked about testing on different surfaces, such as carpet. The TG chair responded that testing is set up in an idealized way, but worst-case variables could be a future work item for the TG. The TG also discussed using the test method on specific products, such as play yards.

Next Steps:

The TG will continue discussing draft firmness, airflow, and CO₂ re-breathing test methodologies at the next meeting. The next TG meeting is expected to take place on March 26, 2024.