Updated 7/2024

**Instructions for Hot Plate Camping Mattress Tests at KSU**

Every time you send a set of products for testing, please email the **KSU Submission Form for Camping Mattresses** file to merediths@ksu.edu. Please send the file in Word format – not PDF. Once you fill out the form, the only thing that should change is the replications option and the product list. Only one form is needed for a set of samples; we will prepare one report and invoice.

**1. Company Information.** Please enter your contact information on the form.

**2. Purchase Order, Invoice, and Payment.** Please enter your purchase order number on the form (if you have one) or indicate that a PO will be sent. We will put the PO number on the invoice that is sent to you. Companies may pay by check, wire transfer, or credit card. Instructions are given on the invoice. If you want the invoice sent to someone other than the company contact, please indicate this on the form.

**3. Select a test type on the form.** The thermal resistance (R-value) of a camping mattress is determined according to ASTM F 3340-22, Standard Test Method for Thermal Resistance of Camping Mattresses Using a Guarded Hot Plate Apparatus. Select the replications option that best suits your needs. Option A is required for consumer-facing claims that cite ASTM F3340. You must supply three full-size specimens of each mattress type for Option A. Option B may be used for prototypes and can consist of any one of the following:

* 3 replications on 1 made-to-fit camping mattress specimen, *or*
* 3 independent replications on 3 identical, made-to-fit camping mattress specimens, *or*
* 1 replication (consisting of 3 different locations) on 1 full-size camping mattress specimen

**4. Sizing, labeling, and sending samples.**

**Full-size specimens** are mattresses identical in size, shape, final design, and construction as the production model. Please note that as part of the testing procedures we will use permanent marker to label the test locations on full-size specimens (i.e., head, foot, and center) per ASTM F3340. For consumer-facing claims three full-size specimens must be provided for each style (replications option A). If only one full-size specimen is available we will test the same specimen at three different locations (replications Option B). Results from one specimen alone cannot be used for consumer-facing claims that cite ASTM F3340.

**Made-to-fit specimens** are smaller samples produced to be 20 x 20 inches square (or slightly larger) for comparative test results. The finished size of the made-to-fit specimen (when inflated, if applicable) must be at least 20 x 20 inches square to cover the plate. Made-to-fit specimens shall be used for replications Option B only.

**Label** the different camping mattress samples using letter codes (A, B, C, etc.). If there are 3 specimens of the same sample type label them A-1, A-2, A-3. Write the code in the corner with a black permanent marker. **Write the code number on the side of the camping mattress that faces up (i.e., faces away from the ground).**  In this way, we orient the camping mattress correctly on the plate, and we can see its code number. If the material is black, write the code number using a silver permanent marker.

**List the sample letter codes** on the submission form, along with the number of specimens (1 or 3), the specimen size (full-size or made-to-fit), the thickness of the sample, and a description. The thickness of the sample is required for us to determine if it meets the maximum testable thickness requirement of the test apparatus. You can also attach a chart identifying each fabric or assembly relative to its code. These descriptions will be used in the report. It is recommended to include the following information: product, name, manufacturer, description, construction type, insulation, shape (rectangular, tapered, etc.), length, and width.

**Send the test samples to:**

Meredith Schlabach
Institute for Environmental Research
Kansas State University Phone: 785-532-2284
0056 Seaton Hall

Manhattan, KS 66506 email: merediths@ksu.edu

**Timing.** We test products in the order they are received at KSU. During holiday times and campus vacation breaks, this will not be possible.

**Test report.** A test report will be prepared and saved as an electronic PDF file with the company’s name and technical report number as the file name (example: NorthFace16-64 fabric report).

**5. Return of materials.** Please provide us with your company’s preferred shipping company and account number for return shipping (e.g., Federal Express, UPS, DHL) on the form. Let us know if you need overnight shipping. If you want us to discard the materials, indicate that on the form.

**6. Export Controls Compliance.** Please indicate if you are contracting, working, or acting for or on behalf of a national government. Include information about the agency or the branch of a national government that you are associated with.