Home & Appliance

External Audience Protocol (EAP) - Decking

June 2021

©2021 Consumer Reports, Inc. This document is the property of Consumer Reports and is intended for the recipient’s internal use only. You may not republish this document or provide copies to third parties or authorize anyone else to do so without Consumer Reports’ prior written consent. You may not use or authorize any third party to use Consumer Reports’ names, ratings or trademarks (i) in any form of advertising, marketing or promotion; (ii) in any manner that may be construed as an endorsement by Consumer Reports; or (iii) in any manner inconsistent with CR's No-Commercial Use Policy without Consumer Reports’ prior written consent.

This document’s contents may not be used in connection with any legal proceedings (including but not limited to litigation involving warranties, marketing claims, product liability, market share, injury or property), regulatory standard setting, administrative investigations or enforcement proceedings, or in connection with any other type of proceedings to which Consumer Reports is not a party. This document is otherwise subject to the terms of Consumer Reports’ User Agreement. Learn more at CR.org.
Consumer Reports conducted several different tests for its report. They include tests detailed in this document.

Note: We review our test methods regularly and make changes and additions where appropriate.

**General** - CR tests decking materials; these include composites and natural wood. These materials are meant to be used as a flat surface capable of supporting weight, similar to a floor, but typically constructed outdoors, often elevated from the ground, and usually connected to one’s home. All tests were performed on untreated decking materials – with the intention of comparing low-maintenance decisions with each other. Obviously, the results will vary with treatments such as preservatives and stains, options that are generally most applicable with wood decking choices. Some tests are done on samples as purchased and also at 1 year, 2 years and 3 years of exposure.

**Performance:** CR performs the following test on decking to identify meaningful differences between models and generate a ratings table with the consumer’s needs in mind.

- Resistance to flexing- a test that measures the resistance to bending under load. Stiffer is better, since the deck will deflect less while it is being walked or stood upon.

- Resistance to slipping- We measure the coefficient of friction using a tribometer in two directions, parallel to the length of the deck board and perpendicular to the deck board.

- Resistance to staining- We apply 6 different stain agents to the surface of each test specimen. They are: Wax black crayon, black ballpoint ink, extra virgin olive oil, yellow mustard, ketchup, and Welch’s grape juice. We allow the stains to remain for 24 hours and then clean them with a commercial cleaning product.

- Resistance to surface damage- Two tests are performed to determine resistance to surface damage, impact resistance and a wear test. Impact resistance is the ability of the surface to remain undamaged under a point load impact – say, a dropped wine bottle. The wear test consists of abrading the surface of the deck boards until the first sign of scratches or scuffing are permanent.

- Sag- The horizontal “droop” that can occur in a decking material over time between two supports. It is a natural change in the horizontal profile as a result of gravity, load, temperature, and other weathering factors.

- Dimensional stability - after water immersion

- Heat retention - how hot the deck material feels to bare skin.

- Biodeterioration- Samples of the decking boards are placed in a compost pile and are inspected after a set period of time for signs of insect infestation or decay.
External Audience Protocol (EAP) - Decking

- Color Change - due to UV exposure

- Long Term Exposure Color Change- Samples are located in hot and humid as well as hot and arid climates with full sun exposure.

- Exposure- Measured after each year for 3 consecutive years. The exposure will look at the change in the key performance attributes (color, sag, surface damage (Dent and Wear), flexing, slip and stain)