

DURABILITY TEST SUMMARY RESULTS FOR THE SSM 26-13 COOKSTOVE

Cookstove System Tested: Durability testing was conducted on the SSM 26-13 stove, manufactured by Zhejiang Huiwenmei Stove Company, located at Dongxi Bridge, Ganlin Town, Shengzhou City, Zhejiang, China. The SSM 26-13 is a side-feed, portable rocket-style stove with a metal combustion chamber, metal-clad body, and cast-iron pot rest. The stove also has a metal fuel bed grate and a metal fuel rest grate that extends from the combustion chamber. The primary fuel type for this stove is wood, which was used as the fuel for the relevant burn tests in the durability protocol.

Test Protocol: The stove was tested using the Cookstove Durability Test Protocol (v1.0), which assesses key components of a stove's design and materials with regard to potential failure¹. The test includes assessments that stress a stove through extended burn times, external and internal physical impacts, corrosion, coating adhesion, quenching, and material failure temperatures. Importantly, the test is not designed to provide an estimate of stove lifetime, which will be a function of the specific conditions it is subjected to during real-world use, but rather provides an indication of which stove components are likely to perform well or poorly over time.

Durability Performance Results: The table below summarizes the overall durability performance of the SSM 26-13 stove. Durability test scores range from 0 to 37 with 0 being the best and 37 the poorest score. The overall score for the stove was 4, with 1 risk factor point scored for only the extended burn, corrosion, coating adhesion, and quenching tests. The overall score of 4 is at the highest Tier 5 performance level (<10) for the ISO voluntary performance targets².

Test component	Stove Score	Possible score range (low score being best)
Extended Burn Test	1	0-5
External Impact	0	0-6
Internal Impact	0	0-6
Corrosion	1	0-5
Coating Adhesion	1	0-5
Quenching Test	1	0-5
Material Failure Temperature	0	0-5
Total	4	0-37

More detailed information on the stove, test, and results can be found in the full report.

¹ <http://cleancookstoves.org/binary-data/DOCUMENT/file/000/000/89-1.pdf>

² The ISO technical report on voluntary performance targets has been approved and publication is forthcoming.