



Mold Resistance Methods and Limitations

Georgia-Pacific Gypsum's Dens™ brand gypsum panels and ToughRock® Mold-Guard™ gypsum boards are designed to provide increased mold resistance compared to standard paper-faced wallboard. Mold resistance is generally determined on the basis of testing representative samples of these products, as manufactured, in accordance with certain ASTM standards.

Georgia-Pacific Gypsum typically tests its gypsum panels and boards for mold resistance in accordance with ASTM D 3273-00 (2005) ("Standard Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber"). Under this test method, the product sample is suspended over soil in a small test chamber with controlled heat and humidity, inoculated with three mold organisms and evaluated for four weeks. The test is designed to evaluate the comparative resistance of certain products to accelerated mold growth under such conditions. A score of 10, the highest level of performance for mold resistance under the test method, indicates no mold growth during the four-week controlled laboratory test.

ASTM D 3273 has important limitations and is not necessarily indicative of mold resistance in actual conditions. For example, the test method is intended for interior coatings, and results for exterior applications should be interpreted with caution. In addition, the test method is limited to one combination of heat and humidity and three mold organisms and does not reflect all temperature and heat combinations or all possible varieties of mold. The test is also limited to accelerated growth for four weeks and is not necessarily indicative of long-term results.

Georgia-Pacific Gypsum's DensGlass® Shaftliner panels and DensShield® Tile Backer are listed as microbial resistant products under the GREENGUARD Environmental Institute's Microbial Resistance Listing Program. This program lists products that have been found to be microbial resistant when tested pursuant to a protocol based on ASTM D 6329-98 ("Standard Guide for Developing Methodology for Evaluating the Ability of Indoor Materials to Support Microbial Growth Using Static Environmental Chambers"). However, this test protocol also has important limitations and is not necessarily indicative of mold resistance in actual conditions and long-term results. For more information concerning this program, please go to www.greenguard.org.

Georgia-Pacific Gypsum's DensArmor Plus® High-Performance Interior Panel and DensShield Tile Backer have each passed a 12-week test conducted by an independent third party in accordance with the US Environmental Protection Agency's ASTM D 6329 protocol. For more information about the EPA's Environmental and Sustainable Technology Evaluations (ESTE) projects for microbial resistant building materials, visit www.epa.gov/etv/este.html#mrbmgw.

The mold resistance of any building product when used in actual job site conditions may not produce the same results as were achieved in the controlled, laboratory setting. No material can be considered mold proof. When properly used with good design, handling and construction practices, Georgia-Pacific Gypsum's Dens brand gypsum panels and ToughRock Mold-Guard gypsum boards provide increased mold resistance compared to standard paper-faced wallboard.