



## Lead (Pb) and Other Heavy Metal Content in Acacia Tile Products

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Acacia Tile does not introduce lead (Pb) or other hazardous minerals in any form as an ingredient to either the body materials or the glazes of our commercially available manufactured products. This is true of all categories of material including: glass, brick, ceramic wall tile and ceramic or porcelain floor tile. In fact, clause 12 of our supplier vendor agreements specifically prohibits the addition of lead to our products and requires third-party testing under ASTM or ISO protocols for content as well as leachability with tolerances less than or equal to standards for children's playground equipment or ceramic table ware intended for serving and holding food for human consumption.

The commitment to providing the highest quality, healthy material, produced sustainably is a core principle at Acacia Tile. We ensure our productions use only naturally occurring and benign materials (clays, talc, sand, feldspar, etc.) in the production of the tile body and glazes. These natural raw materials are used for production in as natural and pristine state as possible - "as mined" from the earth and harmful heavy metals are not strategically employed in product development. Nevertheless, by nature quarried minerals and clays may contain trace amounts of heavy metals, including lead. In addition, the glass frits and oxide stains used in making glaze compounds may also contain trace quantities of heavy metallic elements. However, during the kiln firing process the glaze becomes an integral vitrified part of the ceramic tile and does not separate, flake, or peel throughout the product's lifecycle in normal use-cases (unlike paint or other coatings that are applied to the surface of a product after it is made).

The relatively small amount of glaze added to the tile in combination with the trace elements in the body does not result in any of Acacia Tile's finished product having concentrations greater than 0.1% (1000ppm or mg/kg) of lead or other heavy metals when tested by XRF analysis and less than 0.03% (300ppm or mg/kg) when tested under ASTM C895 or ISO 10545-15 using acids to assess leachability. The Occupational Safety and Health Administration (OSHA) regulations governing the development of Material Safety Data Sheets (MSDSs) requires the identification of "the chemical and common name(s) of all ingredients which have been determined to be health hazards, and which comprise 1% or greater of the composition, except that chemicals identified as carcinogens must be specifically listed if they are present in concentrations of 0.1% or greater. Ingredients of products that may be present in concentrations less than these amounts are deemed not to pose any significant health hazard. Since our products always contain far less than 0.1% lead, it is not listed in the hazardous ingredients section of the MSDS.

Acacia Tile does test all material categories and will make category specific test-data available upon request in relation to hazardous materials content

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