



## **ECOBROKER International**

### **Green Topic Pages**

#### **Roofs - Durable, Lasting Roofing Materials**

##### ***Technology Snapshot & Benefits:***

Slate, clay, concrete, and composite shingles, as well as metal roofing, offer longevity advantages over common asphalt-based shingles. Properly maintained, roofs made of slate, clay or composite shingles can easily last a century. Metal roofs in traditional standing seam or batten seam applications are available in terne (a thin mixture of tin and lead coating a carbon steel core panel) and now in terne-coated-stainless (TCS, the same mixture covering a stainless steel core panel). Well-suited to cathedrals and institutional buildings, one manufacturer estimates a useful life of TCS roofing material to be about 500 years. All non-asphalt options provide freedom from reliance upon imported petroleum products.

##### ***Estimated Cost Savings:***

Installed costs are nearly always greater than short-lifetime asphalt shingles. However, over the lifetime of the lasting roofing material, costs are usually lower than short-life alternatives. Over the span of a century, building owners may expect 4 to 5 roof replacements of asphalt shingles. The attendant labor and landfill costs are often several times that of a long-lasting roofing material. Also, landfill costs are expected to increase. For the homeowner who typically moves every five years, the real value of this measure is in its ability to increase resale value.

##### ***Issues:***

Existing market bias towards short-term solutions tends to limit the range of roofing options presented to building owners. This has the effect of locking-in dependency on 1) products that rely on imported petroleum, and 2) the need for ever-increasing landfill capacity. Some regions may lack roofers and tradesmen skilled in the art of applying slate, metal, clay or composite roofing materials. Some regions may lack long-term landfill capacity.

##### ***More Information On This Topic:***

[U.S. Department of Energy, Building Technologies Program - Concrete and Tile Roofing](http://www.eere.energy.gov/buildings/info/components/envelope/roofing/concretetile.html)  
<http://www.eere.energy.gov/buildings/info/components/envelope/roofing/concretetile.html>