



## Semplastics wins \$1.5 million Department of Energy grant for West Virginia coal-infused roof tiles

*X-MAT® uses coal to create eco-friendly, safe product*

**BLUEFIELD, W.Va. (August 6, 2019)** – The dream of turning Appalachian coal into super strong roof tiles, that will make America's homes safer, is one step closer to reality.

Semplastics, through its Advanced Materials Division, X-MAT®, has secured a second Small Business Innovation Research grant from the Department of Energy's National Energy Technology Laboratory (NETL). The award was given for the development of its value-added coal roofing product, the X-TILE™. The Phase 2 grant provides the company with \$1.5 million.

X-MAT® roofing tiles are lightweight, fireproof and can withstand extreme temperatures. They also have higher flexure strength than ceramic roof tiles currently available on the market.

X-MAT® CEO Bill Easter said, "There is a great deal of excitement about the progress we made over the last year and we are looking forward to the next phase. We are very thankful to the NETL and our friends in West Virginia for helping us secure this critical grant."

Easter continued, "The value of the roof tiles is more than just science. The success of this next generation of roofing tiles makes America's homes safer and leads to a productive way to use coal. It is our mission to use X-TILE™ technology to provide jobs and future manufacturing in the Appalachian region."

X-MAT®'s progress on the tiles was made possible by an initial Department of Energy grant. Through a partnership with West Virginia's Center for Applied Research and Technology (CART), the company was able to create a first-generation prototype of the X-TILE™.

The X-TILE™ uses X-MAT®'s innovative composite material, which combines the properties of metals, plastics and ceramics in one unique material. X-MAT®'s coal-core composite is made of a polymer-derived ceramic that when mixed with coal, does not burn the fossil fuel. As a result, the process reduces the carbon footprint for both the roofing and coal industries in the Appalachian region.

**About X-MAT®, the Advanced Materials Division of Semplastics**



*Courtesy photo*

**The first-generation X-TILE™ prototype was developed in partnership with CART**

X-MAT®, the Advanced Materials Division of Semplastics, launched in 2013. X-MAT® developed a revolutionary high performance material that combines some of the best properties of metals (electrical conductivity), engineering plastics (lightweight) and ceramics (high operating temperature). X-MAT® has had several partnerships including work with NASA, Space Florida and the NETL. X-MAT®'s game-changing material has various current applications including fireproof roof tiles, lightweight space mirrors, battery electrodes and 3D printing ceramics. X-MAT® technology can be custom-engineered to fit many specifications and has unlimited potential market applications. To learn more about X-MAT® capabilities and future projects, visit their website at <https://www.x-materials.com> or call (407)353-6885.

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