



X-MAT® wins Department of Energy grant to develop their coal core-composite technology

X-MAT® supported DOE to create fireproof roof tiles

ORLANDO, Fla. (January 9, 2019) – X-MAT®, the Advanced Materials Division of Semplastics, received a grant for \$225,000 from the Department of Energy for the initial development and creation of fireproof roof tiles out of their patented X-MAT® coal core-composite. The Department of Energy grant will allow for the expansion of X-MAT®'s coal core-composite technology and will produce a new, more eco-friendly way to utilize coal.

X-MAT®'s revolutionary material, a composite made of polymer derived ceramic, when mixed with coal, enables the coal to be used without burning it. There is a very low carbon footprint associated with this new technology.

X-MAT®'s coal core-composite makes for the perfect material for the fireproof roof tiles because of several key properties:

- Strength and durability of metals
- High operating temperature of ceramics
- UV stability
- Low water absorption
- High sound dampening



Bill Easter, CEO of X-MAT® and Semplastics, said, "This disruptive technology is important because it will offer a way to use coal to make roof tiles that are twice as strong as ceramic roof tiles with a 30 percent weight reduction."

Easter believes this grant will enable X-MAT® to build the next generation of roof tiles for the solar industry. Since the X-MAT® material uses coal, Easter has confidence that the roof tiles will support the creation of jobs in the coal industry and jumpstart domestic manufacturing of ceramic tiles.

X-MAT® looks forward to the results of their work with the Department of Energy and will continue to expand the applications of their X-MAT® material following this project.

About X-MAT®

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 Department of Energy. X-MAT®'s game-changing material has various current applications including fireproof roof tiles, lightweight space mirrors, battery electrodes and 3D printing ceramics. With X-MAT®, the possibilities are endless. 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.

Media Contact

Will Wellons

Wellons Communications

407-339-0879

will@wellonscommunications.com