



Semoplastics' Department of Energy contracts and grants

September 2020

Semoplastics, an international material engineering company, has received interest from the Department of Energy for the research and development its Advanced Materials Division X-MAT® is conducting for the reuse of coal and coal waste products. The company has received \$4 million in contracts and grants from the DOE. This funding is being used to develop high-strength building materials, eco-friendly roof tiles and batteries from coal. Semoplastics' technologies are coal reimagined.

High Strength, Encapsulated, Commercially Useful Components and Particles made from Coal Combustion Residuals

This \$1.4 million contract was secured by Semoplastics to fund development of high-strength, commercially-useful components made from coal waste. This coal waste project is expected to lead to progress on constructing a house completely from coal-derived building materials. To learn more about this contract, click [here](#).

Coal Core Composites for Low Cost, Light Weight, Fire Resistant Panels and Roofing Materials

This \$1.5 million grant was awarded to Semoplastics for its revolutionary, eco-friendly roof tile made of coal. The X-TILE™ is lightweight, fireproof and can withstand extreme temperatures. To learn more about this grant, click [here](#).

Coal as Value Added for Lithium Battery Anodes

This nearly \$1 contract was secured by Semoplastics to help fund its research for turning coal into batteries. To learn more about this contract, click [here](#).

About Semoplastics

Semoplastics, a Florida-based material engineering company, launched in 2000. Over the last 20 years, Semoplastics has supplied plastic engineered components to a broad range of industries from medical to aerospace. The Advanced Materials Division of Semoplastics, X-MAT®, was later formed in 2013. Since inception, X-MAT® has developed a revolutionary, high-performance material that combines properties of metals (electrical conductivity), engineering plastics (lightweight) and ceramics (high operating temperature). Semoplastics has held partnerships with NASA, Space Florida and the Department of Energy. Its game-changing material has various current applications including fireproof roof tiles and building materials, lightweight space mirrors, battery electrodes and 3D printing ceramics. Semoplastics' technology can be custom-engineered to fit many specifications and has unlimited potential market applications. To learn more about Semoplastics and X-MAT®'s capabilities and future projects, visit their websites at <https://semoplastics.com/> and <https://www.x-materials.com> or call (407)353-6885.

About X-MAT®, the Advanced Materials Division of Semoplastics

X-MAT®, the Advanced Materials Division of Semoplastics, 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 printed 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.