

## WHAT ARE COAL-BASED CARBON PRODUCTS?

High-performance, high-value carbon materials used to manufacture or improve products integral to our society and everyday life.



## ADVANTAGES OF COAL

- Coal's unique properties and high-carbon density offer **significant advantages** over other carbon-based feedstocks.
- Coal is **abundant, domestic** and enables **low-cost, high-volume production** of carbon materials and products.

## R&D ACTIVITIES

NETL's Advanced Coal Processing Program works with national laboratories, universities, and community and industry partners to **develop new materials and manufacturing processes** that utilize domestic coal to produce advanced carbon products.



## CHALLENGES

- ✓ Taking advantage of the natural variations in domestic coals while minimizing the impacts of coal impurities
- ✓ Controlling, optimizing, and tailoring end-product performance

## RESULTS AND ACCOMPLISHMENTS

Coal-based nanomaterials improve:

- Energy consumption
- Processing speeds
- Durability
- Manufacturing costs of computer memory device



R&D projects enable new coal-derived building material technologies and products:

- Roofing tiles
- Decking boards
- Composites
- Other building products

