

# Graphite solutions for the Nuclear industry



GrafTech has developed stable materials through extensive industry experience. The nuclear industry can depend on these materials to moderate nuclear reactions and handle nuclear fuels.

Our products are backed by the cutting edge engineering and Research & Development expertise of the company that has led the field of graphite materials science for over 120 years.



**technology leader**

**industry experience**

# integrated solutions for the nuclear industry

## RAW MATERIAL PROPERTIES

- Low boron, low ash content
- Isotropic
- Consistent structure
- Supply source longevity

## GRAPHITE PROPERTIES

- High coefficient of thermal expansion
- High purity
- High density
- High strength
- Product uniformity
- Extended life
- Reliable performance



## GLOBAL MANUFACTURING

- Extrusion, molding, iso-molding
- Consistent quality, high volume manufacturing
- Large dimension product
- Heat and chemical purification
- Extreme high temperature treatment
- Precision machining capability
- Inspection and non-destructive testing
- Natural and Synthetic graphite products

## RESEARCH & DEVELOPMENT

- Nuclear irradiation performance
- Crystal structure analysis
- Physical property optimization
- Customer technical service
- State-of-the-art facility

## a complete portfolio

### reactor core

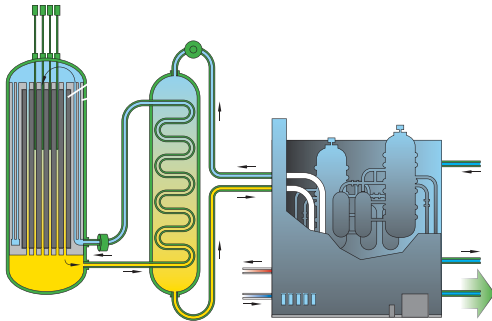


diagram courtesy of Idaho National Laboratory

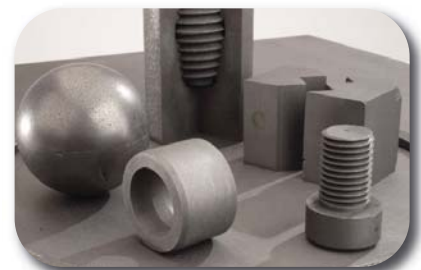
GrafTech International has manufactured most of the nuclear graphite in the history of the nuclear industry, including the graphite used in the Chicago Pile in 1942.

We currently offer:

- Advanced graphite products for Generation IV Very-High Temperature reactors
- A complete line of graphite products suitable for the most demanding reactor conditions as well as active programs to test, develop and qualify future grades.

### fuel processing & components

- GrafTech offers high purity graphite powders designed specifically for the fabrication of fuel compacts and pebbles.
- GrafTech has engineered graphite materials for critical processes outside the reactor, including fuel processing, vitrification and waste storage.



Contact GrafTech's Customer Technical Service representatives for a customized application consultation. Additional information and Technical Data Sheets can be found at [www.graftech.com](http://www.graftech.com)

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**GRAfTech**  
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GT-4059