



Holistic solutions for the nuclear industry

3M offers a wide portfolio of proven products to the nuclear industry spanning across the nuclear lifecycle — through front end, to reactors and back end.

Front end



Advanced fuel applications

- 3M™ Stable Isotopes
- 3M™ Fuel Salts
- 3M™ Technical Ceramics
- 3M™ Silicon Carbide Components

Reactors



Thermal management applications

- 3M™ Nextel™ Ceramic Fibers and Fabrics
- 3M™ Glass Bubbles

Fluid handling and wear applications

- 3M™ Silicon Carbide Sliding Bearings
- 3M™ Silicon Carbide Components

Advanced shielding applications

- 3M™ Advanced Metal Matrix Composite (AMMC)
- 3M™ Stable Isotopes
- 3M™ Castable Ceramics

Constructability and modularity

- 3M™ Friction Shims
- 3M™ Glass Bubbles

Back end



Advanced reprocessing applications

- 3M™ Advanced Metal Matrix Composite (AMMC)
- 3M™ Stable Isotopes

Final repository applications

- 3M™ Advanced Metal Matrix Composite (AMMC)
- 3M™ Stable Isotopes

Overview: Nuclear portfolio offering

Core nuclear products



3M™ Stable Isotopes potentially help customers with safety and efficiency when managing reactor thermal neutron environments, as well as their spent fuel handling.



3M™ Castable Ceramics are useful in criticality control, waste solidification, and neutron shielding.



3M™ Advanced Metal Matrix Composites (AMMC) are highly effective neutron absorbers for nuclear fuel transportation and storage.

Advanced materials products for nuclear applications



3M™ Glass Bubbles are used for lightweighting or insulation.



Fluid Handling and Wear Parts can be used for pumping of acidic, caustic and abrasive media.



3M™ Nextel™ Ceramic Fibers are used for a variety of high temperature sealing and heat shielding applications.



3M™ Friction Shims can secure connections in critical joints, enhancing the coefficient of static friction by up to a factor of 5 for improved performance and reliability at peak loads.

Industrial portfolio offerings

- Personal safety
- Electrical
- I/O connection
- Abrasives & adhesives
- Fire protection

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