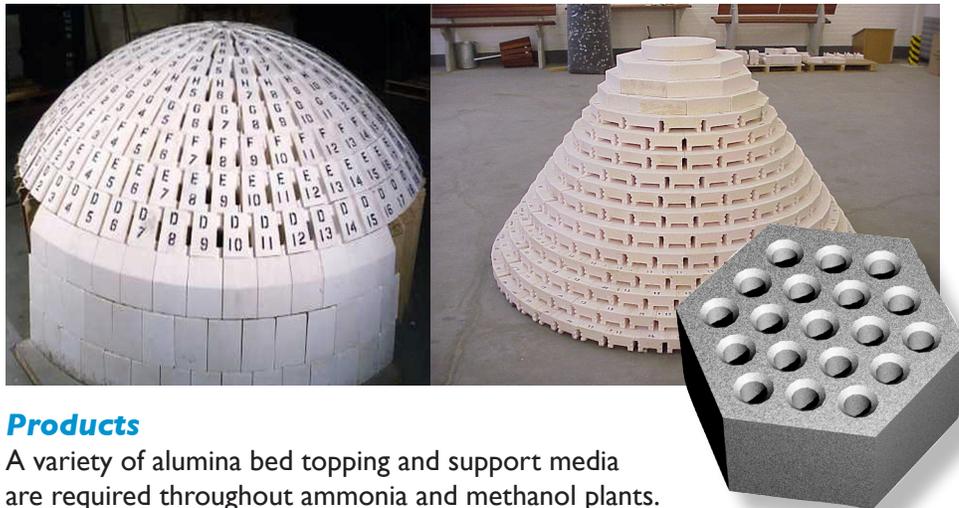


# Bed Topping and Support Media for Ammonia and Methanol Processing

Saint-Gobain, one of the 100 largest industrial companies in the world, designs and manufactures innovative products used throughout the hydrocarbon industry. Saint-Gobain is heavily vested in and known for its unparalleled ceramic solutions and capabilities. Saint-Gobain NorPro is a world leader in support media for fixed bed processes.



## Products

A variety of alumina bed topping and support media are required throughout ammonia and methanol plants.

### Feed Desulfurizer

Denstone® Spheres

### Secondary Reformer

Support Dome

Hexagonal Target Tiles

Denstone® Spheres

Alumina Lumps

### Methanol Reformer

Hexagonal Target Tiles

Denstone® Spheres

Alumina Lumps

### High/Low Temperature

Shift Converters

Denstone® Spheres

### Methanator

Denstone® Spheres

### Dryers

Denstone® Spheres

## Hexagonal Target Tiles

Saint-Gobain specialty high density alumina tiles are designed for the most demanding service conditions. Engineered products based on high purity crystalline aluminum oxide can be delivered as custom manufactured circular bricks and hexagonal target tiles for bed topping in secondary reformers and autothermal reformers.

## Catalyst Support Domes

Custom manufactured from the same high purity alumina formulations, these structures are fabricated and supplied with wooden forms and assembly diagrams.

## Alumina Lumps

This crystallized aluminum oxide material has high stability at elevated temperatures, low impurity content and is inert under reducing atmospheres. Alumina lumps are sometimes used as bed topping or support media in secondary reformers and autothermal reformers.

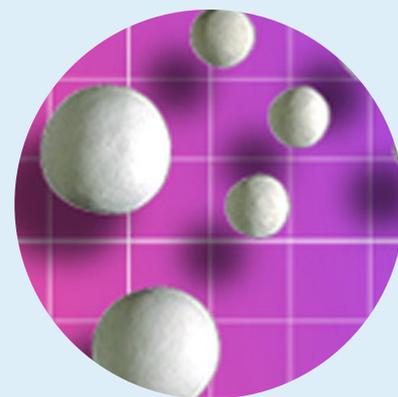
Denstone® ceramic bed support spheres are layered in the reactors above and below the main catalyst beds to mechanically support and retain catalysts, improve flow distribution, and reduce catalyst movement.

## Denstone® 99 Alumina Spheres

The high alumina content, low silica and high strength of Denstone® 99 spheres make this product ideal for high temperature and steam applications, where high alumina media is necessary to prevent leached silica from coating downstream equipment or fouling the catalyst.

## Denstone® 57 and Denstone® 2000 Ceramic Spheres

For less demanding applications, such as the methanator and dryers, Denstone® 57 and Denstone® 2000 spheres provide long life and reliable service.



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