

# Pentaring

## Bed Topping Media

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### Hold Down Media for Your Reactor

Saint-Gobain NorPro is an industry leader in developing ceramic materials in various shapes. Engineered for use as a hold down media at the top of graded reactors, our Pentaring bed topping has been the industry standard for over 15 years.

### It's All in the Shape

The shape of the Pentaring offers substantial gains in void fraction and surface area when compared to traditional sphere-shaped media or Raschig rings. The immediate benefit of high void fraction is lower pressure drop.

Due to their unique shape, Pentarings have:

- 22% increase in void fraction over spheres
- Improved flow distribution of reactor feedstock
- Increased capacity for trapping large particulates

Pentarings are also offered in a variety of sizes to fit your needs.

**As the industry standard for over 15 years, Saint-Gobain NorPro's innovative Pentaring bed topping media can help you get the best performance possible from your reactor.**

The information herein does not constitute a guarantee or warranty. Saint-Gobain NorPro's warranty is set forth in its standard terms and conditions which govern sales of Saint-Gobain NorPro products. The standard terms are set forth in Saint-Gobain NorPro quotations and acknowledgements and are also available upon request.



#### Reactor Configured with NorPro® Products

- Layer 1: Pentaring Bed Topping
- Layer 2: MacroTrap® Guard Bed Media
- Layer 3: HSA Alumina Ring
- Layer 4: Your Catalyst
- Layer 5: Denstone® deltaP® Support Media

## Saint-Gobain NorPro Pentarings



### Typical Chemical Properties

#### Chemical Analysis (wt%)

SiO<sub>2</sub>: 65 - 70%                      Al<sub>2</sub>O<sub>3</sub>: 23 - 28%  
Trace TiO<sub>2</sub>, Fe<sub>2</sub>O<sub>3</sub>, CaO, MgO, Na<sub>2</sub>O, K<sub>2</sub>O

### Typical Physical Properties

Nominal Size		Length		Void %	Horizontal Crush Strength (min)		Bulk Density	
mm	in	mm	in		kg	lbs	kg/m <sup>3</sup>	lb/ft <sup>3</sup>
10	3/8	5.2	1/5	60	45	100	929	58
13	1/2	6.5	1/4	60	75	165	913	57
19	3/4	9.5	3/8	62	100	220	881	55
25	1	12.5	1/2	63	150	330	865	54

#### North & South America

+1 330 673 5860 • Akron, Ohio USA  
norpro.ceramicsales@saint-gobain.com

#### Europe & Africa

+49 6435 9657 0 • Steinfrenz, Germany  
norpro.steinfrenz@saint-gobain.com

#### Russia

+7 812 332 56 60 • Saint Petersburg, Russia  
norpro.stpetersburg@saint-gobain.com

#### Asia, Oceania & Middle East

+65 911 61119 • Singapore  
norpro.singapore@saint-gobain.com

[norpro.saint-gobain.com](http://norpro.saint-gobain.com)

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