

## EndoCube Catalyst

### Gas Reforming Catalyst for Endothermic Gas Generators

#### General Description

'EndoCube' is a 6% Nickel catalyst on an alumina/silica base.

#### Benefits

- Consistent quality
- Size and shape give optimum performance with regard to exposed surface area and low pressure drop.
- Extremely robust such that there is no appreciable disintegration after several years of use, under normal operating conditions.
- Thermally stable at temperatures up to 1100°C and negligible shrinkage.
- Impregnation method allows nickel to penetrate well into the base material, minimising the effect of nickel loss during usage.

#### Physical Properties

Form	:	19mm cubes
Packing Density	:	500kg/m <sup>3</sup>
Cold Crushing Strength	:	35kg/cm <sup>2</sup>
Chemical Composition (typical)		
NiO		6% average
Fe <sub>2</sub> O <sub>3</sub>	<	1.5%
Support		Balance (Al <sub>2</sub> O <sub>3</sub> / SiO <sub>2</sub> )

#### Shipping & Handling

- Available packed in plastic lined 25kg cardboard boxes.
- Box dimensions - 410mm x 410mm x 410mm.
- Avoid contact with skin and clothing.
- Avoid breathing dust.
- Do not take internally.
- Please refer to material datasheet for further information.

#### Product Use

Autothermal reforming of various hydrocarbons in endothermic gas production (Wild Barfield, Birlec, Ipsen, Wellman, British Furnaces and others)



For more information

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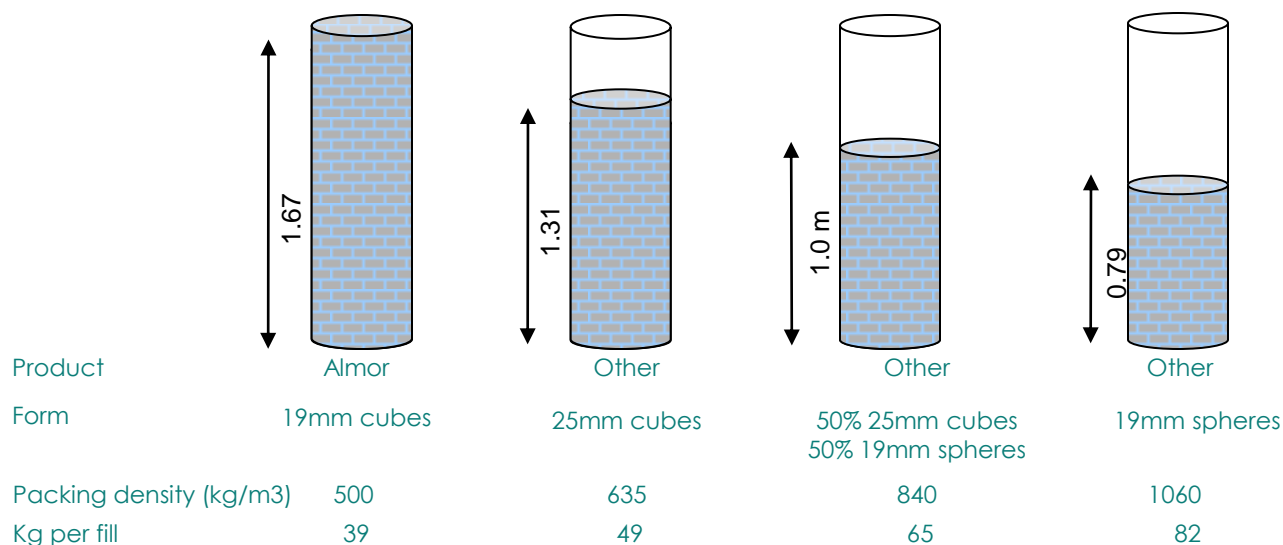
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### IT'S VOLUME THAT MATTERS

Endothermic gas generator catalyst is produced in a range of shapes and sizes (i.e. cubes, spheres or a mix of both). Traditionally, it is sold by weight (price per kg). However, this can be misleading when analysing competitive prices. It is the volume and area that are important when determining the price per retort 'fill'. This is dictated by the packing density (the weight required to fill a particular volume, i.e. kg/m<sup>3</sup>)

Almor 'Endocube' catalyst has been successfully used in a wide range of endothermic gas generators including Wild Barfield, Ipsen, British Furnaces and Wellman. The low packing density (500 kg/m<sup>3</sup>) means that a 25 kg box fills more volume than competitive forms.

The diagram below shows how far 39 kg (a 'fill' of 'Endocube' catalyst on an Ipsen 1500-G generator) of competitive products goes to filling a retort:



Generator Type	Model	No. of Retorts	Effective Volume (m <sup>3</sup> )	'Endocube' Kg
Wild Barfield	EN7.5	1	0.0134	7.0
	EN15	1	0.0228	11.0
	EN30	1	0.0468	23.0
	EN45	1	0.0608	30.0
	EN60	1	0.1224	61.0
	EN90	1	0.1505	75.0
Ipsen	350-G	1	0.0132	7.0
	750-G	1	0.0339	17.0
	1500-G	1	0.0777	39.0
	350-E	1	0.0109	6.0
	750-E	1	0.0280	14.0
	1500-E	1	0.0665	34.0
British Furnaces/ Wellman	M30	1	0.0487	24.0
	70	2	0.1470	73.0
	105	3	0.2204	110.0