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## [Methanation Catalyst](#)

### Methanation Catalyst

Methanation catalyst is used in methanation, which is a physical-chemical process to obtain methane from a combination of various gases such as carbon monoxide, and hydrogen, etc. Methanation is the reverse reaction of steam methane reforming, which converts methane into synthesis gas. The catalyst for methanation provides long service life and reliable performance.

#### Methanation Catalyst META-J103, META-J104

The methanation catalyst, a type of nickel based catalysts, is utilized in the hydrogen system, which generates methanation by removing carbon monoxide and carbon dioxide from hydrogen-rich gases or mixed gases of hydrogen-nitrogen in synthetic ammonia process. The META-J103 methanation catalyst takes the shape of a 3-5mm-diameter sphere, while the META-J104 methanation catalyst is an extrudate with diameter of 5mm. The catalysts have countless applications in industrial plants both at home and abroad.

#### Physical Properties

	META-J103	META-J104
Appearance	Spheres	Black Extrudates
Particle Size (mm)	φ3-5	φ(5-6)×(5-20)
Crushing Strength (N/particle)	Min.80	Min.150
Bulk Density (kg/L)	0.75--0.85	0.80 -0.90
Nickel (Ni) Content (%)	Min.18	Min.18
Attrition Loss (wt %)	Max. 3	Max. 5
Catalytic Activity	0.05NL CH <sub>4</sub> /h/g Catalyst	0.05NL CH <sub>4</sub> /h/g Catalyst

#### Operation Conditions

Process Conditions	Pressure (MPa)	Temperature (°C)	Space Velocity (hr <sup>-1</sup> )
	0.1 -3.0	250-300	7000-10000
Raw Material	CO <sub>2</sub> -1.2%; 3:1 hydrogen-nitrogen, balanced		
Products	CO <sub>2</sub> +CO, 10ppm (Max.)		

Packing: Shrink wrap the methanation catalyst in 200L steel drums lined with plastic bags, with 3 or 4 drums per pallet.

As a Chinese methanation catalyst manufacturer established in 1970, Chempack is ISO9001 approved due to its management in conformity with international standards. Since we began, we strive to produce top quality chemical products for customers by constantly introducing internationally advanced technologies. As a result of our efforts, our oxygen removal, carbon monoxide removal, adsorbent, and more, have reliable quality and superior performance. High quality competitively priced products, coupled with our complete service, has won us customers from many countries, including South Korea, Germany, Britain, New Zealand, Thailand, Indonesia, Kuwait, Philippines, among others. If you are interested in our chemical products, please continue to browse our other product webpage for more detailed information, or contact us directly. The staff at Chempack is happy to assist you with whatever your need may be.

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