TECHNICAL DATA SHEET

Mesoporous Silica Molecular Sieve FDU-12

Face-centered cubic (f.c.c.) mesoporous silica · pore diameter 10.0 nm · entrance 3.8 nm · BET ~600 m²/g · calcined · 20 g



ACS Material Mesoporous Silica Molecular Sieve FDU-12 — Representative Packaging

ACS Material FDU-12, 20 g. Image shown for reference.

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SECTION I

Product Overview

FDU-12 is a three-dimensional mesoporous silica with a highly ordered face-centered cubic (f.c.c.) pore structure. Its large cage-type pores and three-dimensional channel system favor mass transfer and the diffusion of guest molecules, and its high surface area and long-range ordered pore channels make it well suited as a catalyst carrier and for adsorption, separation and immobilization.

ACS Material FDU-12 is hydrothermally synthesized and fully calcined; it is ready to use directly.

SECTION II

Core Advantages

- **Ordered 3D pores** — f.c.c. cage-type mesostructure.
- **Large pores** — average pore diameter 10.0 nm.
- **High surface area** — BET ~600 m^2/g.
- **Ready to use** — calcined powder.

SECTION III

Specifications

Technical data

Specifications	
Product name	Mesoporous Silica Molecular Sieve FDU-12
Brand	ACS Material
CAS No.	7631-86-9
Preparation method	Hydrothermal Method
Supplied	Calcined, ready to use directly

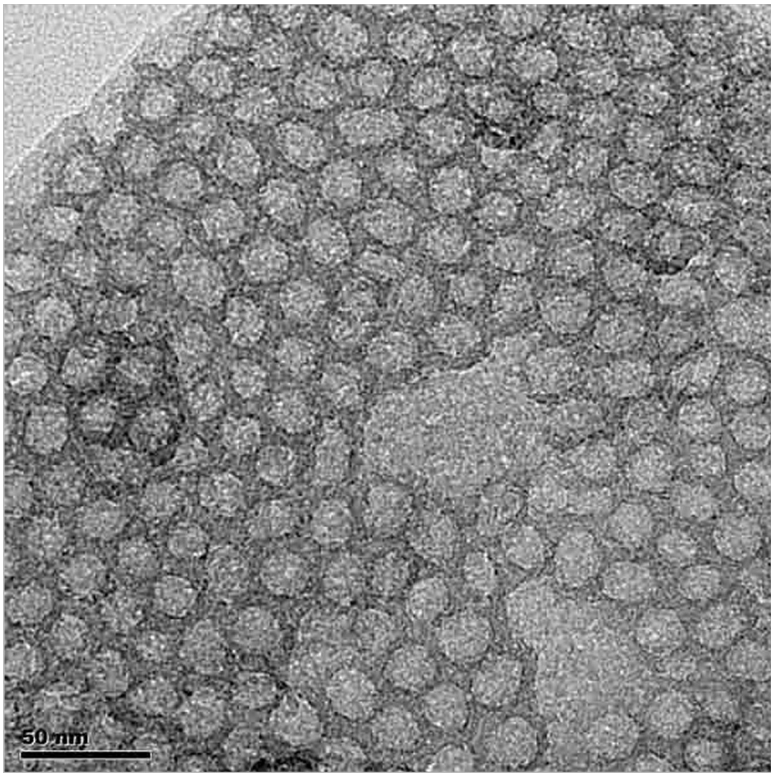
Characterizations by type

Characterizations	FDU-12
Form	Powder
Phase	f.c.c.
Average pore diameter (nm)	10.0
Entrance size (nm)	3.8
BET surface area (m^2/g)	~600
Pore volume (cm^3/g)	0.66
Na_2O (%)	≤1.0
Particle size (μm)	2–3

Ordering information

Product	Package	Product No.
FDU-12	20 g	MSFD1212

Typical data



TEM image of ACS Material FDU-12 (scale bar 50 nm).

SECTION IV

Applications

1) Catalyst.

2) Adsorbent.

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