TECHNICAL DATA SHEET

ZSM-23

MTT framework · Types A–D · SiO_2/Al_2O_3 molar ratio ~20–80 · 1 g to 100 g



ACS Material ZSM-23 — Representative Packaging

ACS Material ZSM-23, Type A, 1 g (MZ230001). Image shown for reference; label and packaging may vary.

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ACS MATERIAL, LLC

959 E Walnut St., Suite 100
Pasadena, CA 91106, USA

Phone +1 (866) 227-0656
Fax +1 (781) 518-0284

contact@acsmaterial.com

Revision Date **10/29/2026**

SECTION I

Product Overview

ZSM-23 (Zeolite Socony Mobil-23) is a high-silica zeolite molecular sieve developed by the Mobil Oil Company. It has the MTT framework, with pores defined by parallel channels that have cross-sectional dimensions of about 4.5 Å by about 5.2 Å.

Zeolite ZSM-23 and other MTT framework materials have significant commercial potential because of their catalytic activity and ability to dewax paraffinic hydrocarbons. ACS Material offers ZSM-23 in four types (A–D) with SiO_2/Al_2O_3 molar ratios from ~20–35 to ~80. Typical SEM and XRD data are included in this data sheet.

SECTION II

Core Advantages

- **MTT framework** — channels ~4.5 × 5.2 Å.
- **Four types** — SiO_2/Al_2O_3 ~20–80.
- **Nanocrystals** — Type A, diameter 40–50 nm.
- **High-silica zeolite** — developed by Mobil.
- **High crystallinity** — >95% (Type A); ≥90% (B–D).

SECTION III

Specifications

Technical data

Specifications	
Product name	ZSM-23 (Zeolite Socony Mobil-23)
Brand	ACS Material
Framework type	MTT
Channel system	Parallel channels, about 4.5 × 5.2 Å
Crystal size, Type A (SEM)	Length 100–250 nm; diameter 40–50 nm
Storage	Keep container tightly closed in a dry and well-ventilated place.

Characterizations by type

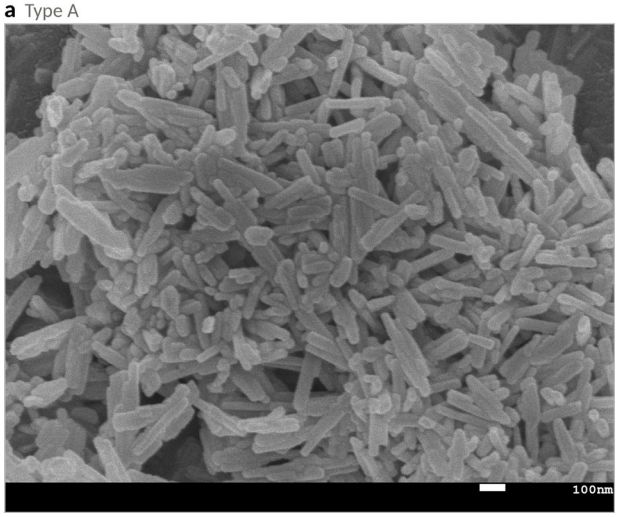
Characterizations	Type A	Type B	Type C	Type D
SiO_2/Al_2O_3 molar ratio	~80	~20–35	~40–50	~55–70
Crystallinity	>95%	≥90%	≥90%	≥90%

Ordering information

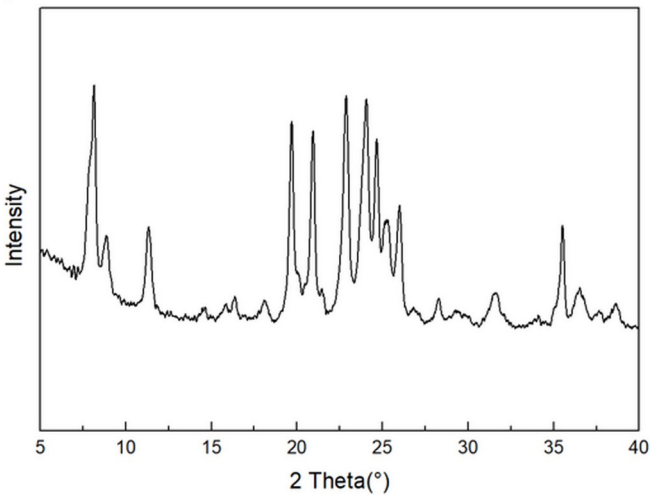
Type	Package	Product No.
Type A	1 g	MZ230001
Type A	10 g	MZ230011
Type B	100 g	MZ230121
Type C	20 g	MZ230212
Type C	100 g	MZ230221
Type D	100 g	MZ230321

Typical data

a Type A



b



a SEM image of ACS Material ZSM-23, Type A, ×50,000 (scale bar 100 nm). **b** XRD pattern (2θ 5–40°).

SECTION IV

Applications

1) Catalyst.

2) Lubricating oil hydroisomerization.

3) Butene isomerization.

Revision Date: 10/29/2026

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