



SIMACRON
ADVANCED MATERIALS

Guangzhou Ximeikang Biotechnology Co., Ltd.

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TECHNICAL DATA SHEET

Dextran 40

1. Product Identification

Product Name: Dextran 40

CAS No.: 9004-54-0

EC No.: 232-677-5

Synonyms: Dextran; Dextran average Mw 40,000

Brand: SIMACRON Advanced Materials

Supplier: Guangzhou Ximeikang Biotechnology Co., Ltd.

Manufactured by: Qualified production partner (China)

2. Chemical Information

Chemical Nature: Polysaccharide produced by microbial fermentation from sucrose

Molecular Formula: $(C_6H_{10}O_5)_n$

Structure: α -1,6-linked D-glucose backbone with α -1,3 branching

3. Product Grade

Grade: Research / Reagent Grade

Application Scope: For laboratory research and industrial applications only.

Restriction: Not for pharmaceutical or clinical use.

4. Typical Technical Specifications

The following data are typical values and do not constitute a specification.
Final product quality is defined by the batch-specific Certificate of Analysis (COA).

Item	Dextran 40 (Typical)	Method
Appearance	White to off-white powder	Visual
Average Molecular Weight	~40,000	Nominal
pH (60 g/L, 25°C)	5.0 – 7.0	USP / EP
Specific Rotation [α] _{20/D}	+195° to +205°	USP <781>
Intrinsic Viscosity (dL/g)	0.16 – 0.20	Internal Method
Loss on Drying	≤ 5.0%	USP <731>

Residue on Ignition	≤ 0.5%	USP <281>
Solubility	Freely soluble in water	Visual

5. Microbial & Additional Parameters

Item	Specification
Total Plate Count	Refer to the batch COA
Yeast & Mold	Refer to the batch COA
E. coli	Absent
Endotoxin	Available upon request

6. General Characteristics

- Neutral, water-soluble glucan polymer
 - Biocompatible and widely used in biochemical and analytical applications
 - Provides viscosity control and osmotic properties
 - Commonly used in chromatography calibration and formulation development
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7. Key Advantages:

- Batch-to-batch viscosity performance with controlled variation

- Produced via standardized fermentation and purification processes
 - Reproducible molecular weight characteristics suitable for research applications
 - Flexible and reliable supply capability for bulk and customized orders
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8. Applications

- Size exclusion chromatography standards
 - Plasma volume expanders (research only)
 - Nanoparticle and drug delivery research
 - IVD reagent development
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9. Quality System

- Manufactured under ISO-compliant quality management system.
 - Batch-to-batch consistency is controlled through internal QA procedures.
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10. Handling and Storage

- Store in a tightly closed container
 - Keep in a cool, dry, and well-ventilated area
 - Protect from moisture and direct sunlight
 - Reseal immediately after use
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11. Packaging

- 1 kg / 5 kg: Double polyethylene (PE) bags
- 10 kg / 25 kg: Fiber drum with inner PE liner
- Custom packaging available upon request

12. Shelf Life

24 months when stored under recommended conditions

13. Important Note

The values listed above are typical technical data and are not intended as product specifications. Final product quality is defined and guaranteed by the batch-specific Certificate of Analysis (COA).

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