Qingdao Haiminghao New Material Technology Co., Ltd.

TECHNICAL DATA SHEET

Material Grade: HMH-M170
Product Type: Molded Graphite
Industry: EDM / Mold / Furnace

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1. General Description

Molded graphite is manufactured by compressing graphite materials in a mold, producing a dense structure with stable mechanical properties and good dimensional stability. It is suitable for regularly shaped components requiring higher strength, and is widely used in mechanical parts, electrodes, and heat-resistant applications.

2. Physical Properties

Property	Unit	Typical Value
Maximum Particle Size	μm	⩽ 22.0
Bulk Density	g/cm³	⩾ 1.70
Shore Hardness	HSD	50–60
Flexural Strength	MPa	⩾25
Compressive Strength	MPa	⩾ 50
Electrical Resistivity	μΩ·m	⩽ 13.0
Thermal Conductivity	W/m·K	70–100

3. Chemical Properties

Item	Unit	Value
Carbon Content	%	⩾ 99.5
Ash Content (Impurities)	%	⩽ 0.1

Chemical Resistance:

Acid Resistance:	Excellent
Alkali Resistance:	Excellent

4. Thermal Properties

Property	Unit	Value
Max. Working Temperature (Air)	°C	⩽ 500
Max. Working Temperature (Inert Gas)	°C	⩽ 2800
CTE (100-600℃)	10^{-6}/K	⩽ 2.8

5. Machining Capability

CNC Machining Supported

Minimum Tolerance: ±0.02 mm

Complex Geometry Available

Custom Drawings Accepted (PDF / DWG / STEP)

6. Typical Applications

EDM Electrodes

Heat Treatment Components

Mold and Die Inserts

7. Quality & Inspection

Dimensional Inspection Available

Material Certification on Request

Incoming & Final QC Inspection

8. Disclaimer

The information provided in this datasheet represents typical values and is not guaranteed. Actual material performance may vary depending on application, machining conditions, and service environment.