

## **Lanthanum Hexaboride Cathode**

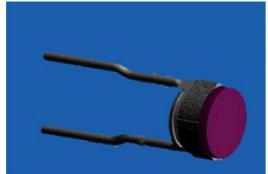
Lanthanum Hexaboride (LaB6) cathodes usually show 10 times the brightness and 50 times the service life of tungsten cathodes. Nextgen Advanced Materials supplies Lanthanum Hexaboride Cathode with high quality and fast delivery and customized products are also available.

## **Product Description**

Lanthanum Hexaboride Cathode, LaB6 Cathode

Nextgen Advanced Materials INC is a professional leader Lanthanum Hexaboride Cathode manufacturer with high quality and reasonable price. Welcome to contact us. Lanthanum Hexaboride (LaB6) cathodes usually show 10 times the brightness and 50 times the service life of tungsten cathodes. In electron microscopy applications, these characteristics can convert more electron beam currents on smaller spots of the sample, improve resolution, and reduce the frequency of cathode replacement.

The unique properties of lanthanum hexaboride crystals provide a stable electron emission medium with a work function close to 2.70 eV. The low work function produces a higher current at a lower cathode temperature than tungsten, which means greater brightness or current at the beam focus, and a longer LaB6 cathode life. We provide LaB6 cathode with customized dimensions; regular purity is 99.5%.





## **Lanthanum Hexaboride Material Specifications**

Product	Lanthanum Hexaboride	Structure	Polycrystalline
Symbol	LaB6	Thermal Conductive	47 W/mK (20℃)

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Nextgen Advanced Materials INC www.nexgematerials.com 6.2 Cas No. 12008-21-8 Thermal Expansion 10-6K-1 (20-900°C) Atomic Mass 203.78 g/mol Electrical Resistance ca.15 μΩ cm (20°C) Electrical Conductivity 6.65×104 S/cm (20°C) Density 4.72 g/cm3 150 A/cm2(1950°C) Melting Point 2528 K Current Density 2.6 eV Hardness 87.5 RA Electron Emissivity Flexure Strength Fracture toughness 200 Mpa 3.0 MN/m3/2 (o) (Kic)

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