LabCore
MATERIALS

# Solid-State Battery Three-Electrode Test Mold | Compact

Three-electrode split cell with an integrated reference electrode for independent potential monitoring — purpose-built for all-solid-state battery mechanism and interface diagnostics.

**Electrode Materials**

Materials Characterization

Energy Storage

labcorematerials.com

# Solid-State Battery Three-Electrode Test Mold | Compact

## Product Overview

Three-electrode split cell with an integrated reference electrode for independent potential monitoring — purpose-built for all-solid-state battery mechanism and interface diagnostics.

This is a compact three-electrode test cell purpose-built for all-solid-state battery mechanism studies. Unlike conventional two-electrode split cells, the MOL1D100A integrates a **third reference electrode**, enabling researchers to independently monitor working-electrode and counter-electrode potentials during cycling — critical for deconvoluting interfacial side reactions, impedance evolution, and failure mechanisms.

The PEEK inner core delivers excellent electrical insulation, chemical resistance, and mechanical stability up to 200 °C, while die-steel plungers and the locking cap maintain reliable solid–solid contact at 5 T of stack pressure. **The standard configuration supports up to 500 MPa**; a 1000 MPa version is available as a custom option on request.

With an overall footprint of Dia. 78 mm x H105 mm and a Dia. 10 mm working cavity (customizable from 5–20 mm), the split-cell design enables quick assembly, disassembly, and electrode replacement — ideal for routine operation inside a glovebox.

## Technical Specifications

| Parameter | Value | Unit |
|---|---|---|
| Material (Core) | PEEK | |
| Plunger Material | Die Steel | |
| Outer Dimensions | Dia. 78 x H105 | mm |
| Working Cavity Diameter | 10 | mm |
| Max Stack Force | 5 | T |
| Max Pressure | 500 | MPa |
| Max Operating Temperature | 200 | °C |
| Screw Head Diameter | 36 | mm |
| Electrode Configuration | Working / Counter / Reference | |

## Order / Quote

| Model | Pack Size | Availability |
|---|---|---|
| **DLK-TB-500-MPA** | 500 MPa | Made to order (quote) |

**Current pricing and ordering: labcorematerials.com/products/labcore-solid-state-three-electrode-mold/**

## Contact

business@labcorematerials.com
labcorematerials.com/products/labcore-solid-state-three-electrode-mold/