

Cr1820 Stainless Steel Coin Cell Cases With Separate O Ring Gaskets

Item Number: FZ09



Introduction

Engineered for advanced battery research, these CR1820 stainless steel coin cell cases feature separate polypropylene O-ring gaskets for superior hermetic sealing, excellent corrosion resistance, and reproducible electrochemical testing in demanding laboratory and energy storage development workflows today.

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Application	Description	Key Benefit
Lithium-Ion Cathode & Anode Evaluation	Assembly of half-cells and full-cells using active material coated electrodes against lithium metal or standard counter electrodes.	Delivers consistent stack pressure for precise capacity retention and coulombic efficiency tracking.
Next-Generation Sodium-Ion R&D	Testing novel sodium-based insertion compounds and organic cathode materials in non-aqueous liquid electrolytes.	Robust 304 stainless steel resists passivation breakdown from alternative salt and solvent chemistries.
Solid-State Electrolyte Screening	Encapsulation of composite or thin polymer/ceramic solid electrolyte pellets paired with experimental electrodes.	Rigid casing geometry prevents edge cracking and maintains uniform planar pressure across fragile solid interfaces.
Electrochemical Supercapacitor Testing	Prototyping symmetrical and asymmetrical electric double-layer capacitors (EDLCs) using ionic liquids or organic electrolytes.	Low internal resistance and hermetic sealing preserve low ESR values over thousands of rapid charge-discharge cycles.
Electrolyte & Additive Formulation Profiling	Comparative screening of novel fluoro-solvents, high-voltage additives, and highly concentrated salt solutions.	Independent PP O-ring prevents solvent evaporation and atmospheric moisture ingress over extended evaluation periods.
Post-Mortem & Degradation Analysis	Systematic cycling followed by controlled cell decrimping inside inert gloveboxes to inspect SEI layer morphology.	Predictable crimp deformation allows clean opening without damaging internal active material layers.

Specification Parameter	Value / Dimension
Product Item Number	FZ09
Standard Form Factor	CR1820 (18 mm Nominal Diameter × 2.0 mm Nominal Height)
Casing Material	304 Stainless Steel (SS304)
Insulating Gasket Material	Polypropylene (PP)
Gasket Configuration	Independent / Separate O-Ring
Top Cap Outer Diameter (OD)	18.46 mm
Top Cap Inner Diameter (ID)	17.87 mm
Top Cap Thickness / Height	2.25 mm
O-Ring Outer Diameter (OD)	17.62 mm
Bottom Cup Outer Diameter (OD)	16.78 mm
Bottom Cup Height	1.31 mm
Primary Compatibility	Rechargeable Battery R&D, Half-Cell & Full-Cell Assembly