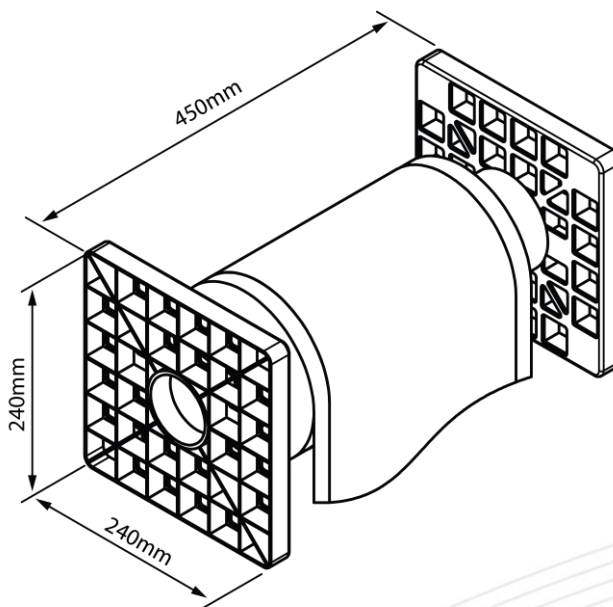


Datasheet BTRN-PD1005

Lithium Ion Battery Electrode



Datasheet date	191025		
Revision	004		
Lot No.	BTRN-PD1005		
Product Description	Anode for Lithium Ion Batteries with Aligned Graphite Technology, compressed . Production sample for further processing. For testing purposes only.		
Electrode length	Roll of 50 m		
Coating width	240 mm (20mm blank on each side)		
Current collector width	280 mm		
Coating description	Double-sided continuously coated		
Core diameter	3"		
Component	Material		
Active material	Flake synthetic graphite		
Viscosity modifier	Carboxymethyl cellulose (CMC)		
Binder	Styrene butadiene copolymer (SBR)		
Balancing agent	---		
Conduction additive	---		
Solvent	Water		
Current collector	Copper		
Property	Nominal	Measured¹⁾	Comment
Area specific reversible capacity ^{d)}	3.46 mAh/cm ²	(3.48+/-0.12) mAh/cm ²	Calculated value
Area specific 1 st cycle capacity ^{d)}	3.66 mAh/cm ²	(3.68+/-0.12) mAh/cm ²	Calculated value
Area specific mass ^{m)}	10.00 mg/cm ²	(10.05+/-0.34) mg/cm ²	Coating w/o foil
Active material weight percentage ^{s)}	97.00 %		Weight %

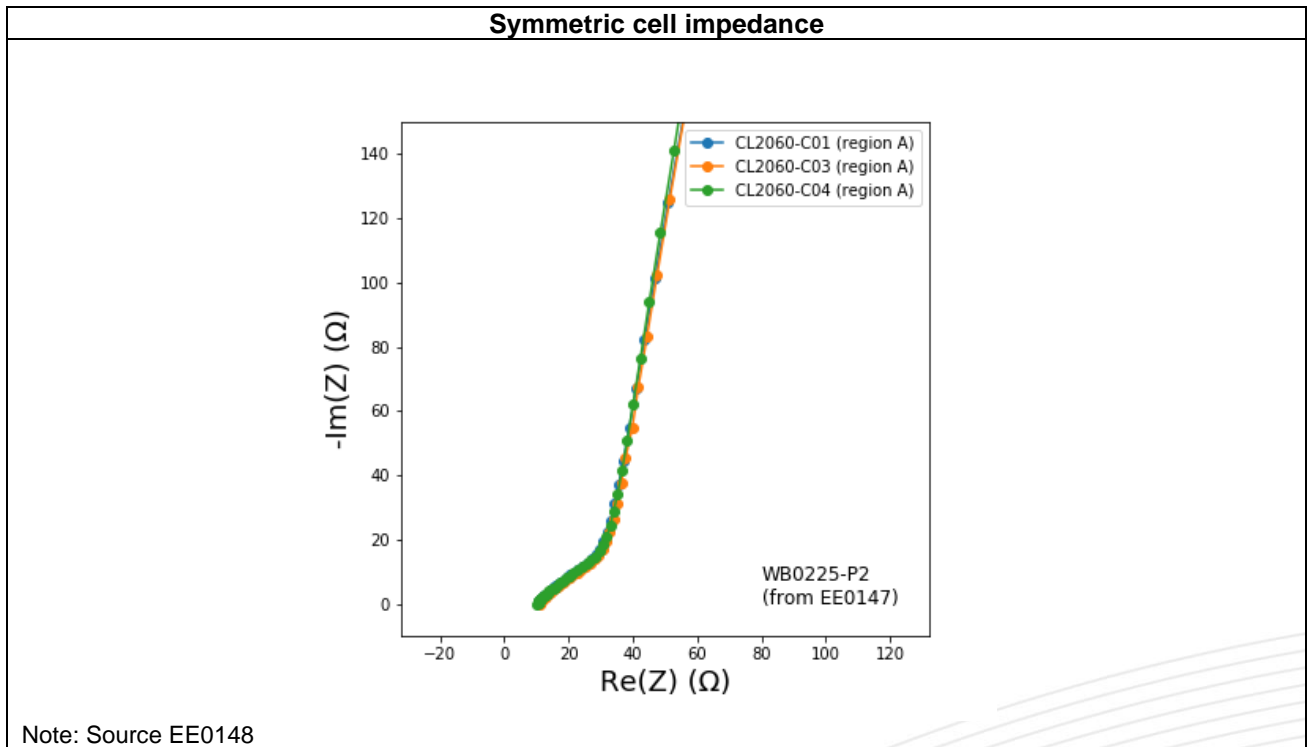
Reversible capacity of active material ^{m)}	356.70 mAh/g		
1 st charge capacity of active material ^{m)}	377.50 mAh/g		
Coating thickness, single side ^{m)}	62.50 μm	(65.00+/-0) μm	after compression
Coating density ^{d)}	1.60 g/ml	(1.55+/-0.05) g/ml	after compression
Current collector thickness ^{m)}	8.0 μm	8.0 μm	
Current collector area specific mass ^{m)}		7.23 mg/cm ²	
Active material particle size d10 ^{s)}	6.9	6.8	
Active material particle size d50 ^{s)}	12.7	12.5	
Active material particle size d90 ^{s)}	22.6	22.2	
MacMullin number ^{m)}	13.00	(12.80+/-0.40)	
Ionic resistance ^{d)}	8.12 Ω		1cm ² sample with 10 mS/cm electrolyte
Peel strength ^{m)}	≥ 4.00 mN/mm	6.67 mN/mm	@50mm/min, coating density
^{m)} measured value ^{s)} specified value ^{d)} driven value/calculated value ⁾ per mass coating ¹⁾ Mean \pm standard deviation	Comments:		

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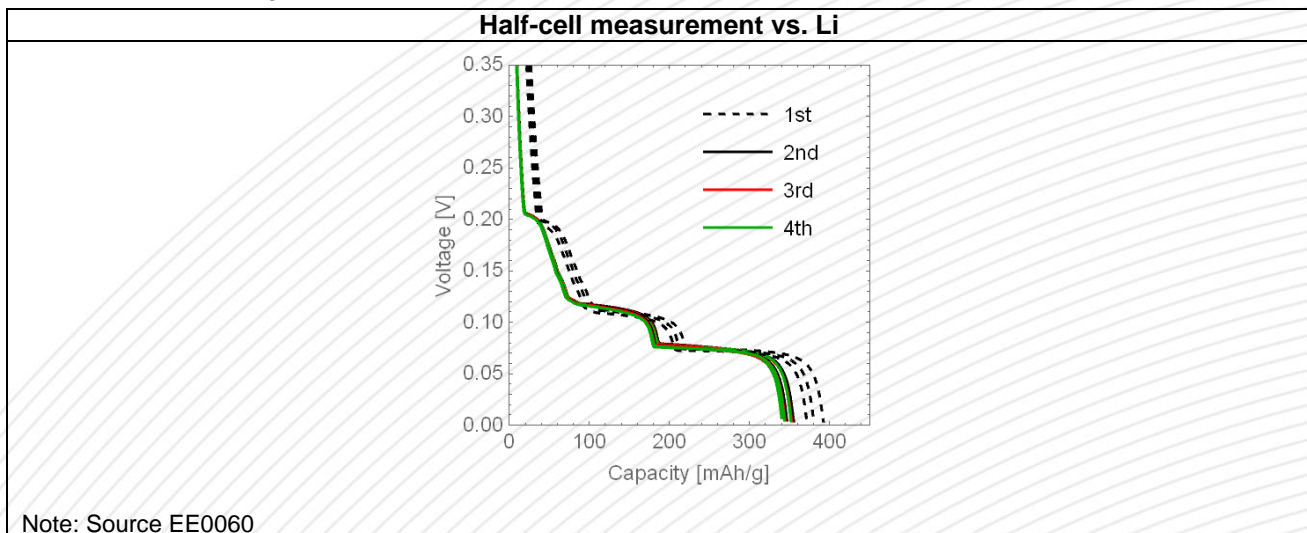
Electrochemistry



Note: Source EE0148

Property	Measured ¹⁾	Unit	Comment
Coating density	(1.55+/-0.05) g/ml	g/ml	
N _m corrected (n _m _corr)	(12.80+/-0.40)		Corrected for conductivity and area

Electrochemistry



Note: Source EE0060