

**TESTING AND MEASURING EQUIPMENT/ALLOWED SUBCONTRACTING**  
**IEC 62619:2017, Edition 1.0**

**Secondary cells and batteries containing alkaline or other non-acid electrolytes –  
Safety requirements for secondary lithium cells and batteries, for use in industrial  
applications**

“R” Required  
“S” May be subcontracted, see OD 2012  
“SPTL” Specialized Facility, see IECEE 02-2  
“W” Witness testing in the categories “MED” and “MEAS”  
“3PPS” Three Phase Power Supply required

Clause	Measurement/testing	Testing / measuring equipment / material needed	Subcontracting
6.2	Type test conditions	Temperature recorder.	R
7.1	Charging procedures for test purposes	Oven.	R
		DC power supply.	R
		Electric load.	R
7.2.1	External short-circuit test (cell or cell block)	Multimeter - 30 mΩ ± 10 mΩ.	R
		Oven.	R
		Temperature measurement device. Per IEC 62619:2017, Clause 7.2.1.	R
		Timer.	R
7.2.2	Impact test (cell or cell block)	Concrete or metal floor.	R
		Steel bar. Per IEC 62619:2017, Clause 7.2.2.	R
		Mass. Per IEC 62619:2017, Clause 7.2.2.	R
		Height measurement.	R
7.2.3.2	Whole drop test (cell or cell block, and battery system)	Scale.	R
		Concrete or metal floor.	R

Clause	Measurement/testing	Testing / measuring equipment / material needed	Subcontracting
		Height measurement.	R
		Timer.	R
7.2.3.3	Edge and corner drop test (cell or cell block, and battery system)	Scale.	R
		Concrete or metal floor.	R
		Height measurement.	R
		Triangular support. Per IEC 62619:2017, Figures 3 and 4.	R
		Timer.	R
7.2.4	Thermal abuse test (cells)	Oven. Per IEC 62619:2017, Clause 7.2.4.	R
		Timer.	R
7.2.5	Overcharge test (cell or cell block)	DC power supply.	R
		Temperature measurement device. Per IEC 62619:2017, Clause 7.2.5.	R
		Timer.	R
7.2.6	Forced discharge test (cell or cell block)	DC power supply.	R
		Timer.	R
7.3.2	Internal short-circuit test (cell)	Per IEC 62133:2012, Clause 8.3.9, controlled environment (e.g. chamber), nickel particle, bag with sealing zipper and pressing equipment.	S
7.3.3	Propagation test (battery system)	Per IEC 62619:2017, Clause 7.3.3. and Annex B, thermal runaway inducing mechanism.	S
8.2.2	Overcharge control of voltage (battery system)	DC power supply.	R
		Timer.	R
8.2.3	Overcharge control of current (battery system)	DC power supply.	R
		Timer.	R
8.2.4	Overheating control (battery system)	Oven.	R
		DC power supply.	R
		Timer.	R