

**TRANSPORT
EASINGS
FROM
LITHIUM-IONS & METAL
BATTERIES & CELLS
UN3480 LITHIUM ION BATTERIES
UN3090 LITHIUM METAL BATTERIES
Dangerous goods class 9**

**Note: UN38.3 SUMMARY SUMMARY SINCE 01.01.2020 OBLIGATIONAL
(An example of the test summary can be found on the last page)**

Road transport **ADR**
Rail transport **RID**
Maritime transport **IMDG**



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Special provision (SV) 188 when shipping UN3480 + UN3090

Type of transport: road ADR, rail RID, sea IMDG

SV: 188 (special provision 188 ADR / RID / IMDG)

Cells and batteries must be packed in inner packagings that completely enclose them, they must be protected in such a way as to prevent short circuits, including protection against contact with conductive materials inside the packaging that could cause a short circuit. The inner packagings must be packed in strong outer packagings and the package must withstand a drop test from a height of 1.2m.

Maximum 30 kg gross per package

Notes:

This special provision does not apply to air transport (IATA-ICAO)

This applies **ONLY** to cells or batteries tested according to UN38.3

German and English shipping name UN3480

LITHIUM ION BATTERIES / UN3480 LITHIUM ION BATTERIES rechargeable lithium battery cells and battery packs (also called secondary cells)

Battery cell = less than or equal to 20Wh

battery pack = less than or equal to 100Wh

German and English shipping name

UN3090 LITHIUM METAL BATTERIES / UN3090 LITHIUM METAL BATTERIES non-rechargeable lithium cells or packs (also called primary cells)

Cell = less than or equal to 1g lithium content

Pack = less than or equal to 2g lithium content

Lithium content can be found in the data sheet of the cell or packIf the above conditions apply, then the following sticker:**marking:**

Sticker: "Lithium batteries" shown in a reduced size, Black on white, red border with diagonal lines

Minimum width of red hatching 5mm.

If the package allows/allows it, the dimensions, line width

may be reduced to up to 105mm in width and 74mm in height.

* UN3480 or and UN3090**

telephone number for additional information

And the following facilitations:

A.) No UN-cardboard necessary

B.) Package only has to pass a drop test from all sides of 1.2m

C.) No transport document required for road and rail (ADR & RID)

D.) No IMO declaration necessary for the sea (IMDG)

DEFINITION OF TERMS

In dangerous goods law, a distinction is made between UN number 3480 and :

LITHIUM BATTERY (secondary battery = battery pack):

"Battery" means two or more cells which are electrically connected and equipped with devices necessary for its use, e.g: battery casing, battery terminals, marking and protection devices. The battery shall be tested in accordance with the requirements of subsection 38.3 of the UN Manual of Tests and Criteria.



LITHIUM CELLS (secondary cell):

A lithium single cell battery is considered a "cell" and must be tested in accordance with the test requirements for a "cell" for the purposes of these Regulations and the requirements of subsection 38.3 of the UN Manual of Tests and Criteria.



Secondary means: Rechargeable

Lithium Metal Batteries UN3090 are primarily cells & batteries (i.e. non-rechargeable) but the battery and cell declarations remain identical.

GENERAL INFORMATION:

Since many carriers and forwarding agents have their own requirements for the transport of dangerous goods or do not accept dangerous goods, it is recommended to give the following details when placing the transport order:

LITHIUM-ION BATTERIES / watt-hours
UN 3480 / Class 9 / **Special provision 188 ADR**
Number and weight of packages

As well as the Material Safety Data Sheet (MSDS) or the Safety Data Sheet (SDS).

UN38.3 TEST (test summary mandatory since 01.01.2020)

Basically all lithium cells and battery packs must be tested according to UN Manual 38.3 UN. In the course of this UN-test you will also receive the MSDS (Material Safety Datasheet), which basically checks all carriers in advance whether they accept these goods for transport. The transport of prototypes and pre-series is in principle also possible without UN38.3 testing under special conditions but is not dealt with in this guide.

An example of the test summary, which has been mandatory since 01.01.2020, can be found on the last page.

COMMENTS:

Instruction of the involved employees/participants according to their tasks and responsibilities. (e.g.: Consignor - Instruction on his duties or training)

Transport documents may only be issued by instructed persons who have successfully completed the relevant training.



Important notes:

This information has been prepared and compiled according to the latest state of the art, with care and consideration. All information has been given to the best of our knowledge and belief. Nevertheless, no liability can be assumed for this, as this information can be updated or changed at any time.

The representations make no claim to completeness. With this edition all older editions lose their validity; typographical and printing errors excepted.

Applicable laws and regulations must be observed by the distributors and users of the product on their own responsibility.

Example test summary


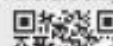






UN38.3 Test Summary

AccuPower – Research, Development and Distribution Company (Ltd.)

UN38.3 TEST SUMMARY

IN ACCORDANCE WITH SUB-SECTION 38.3.5 OF UN MANUAL OF TESTS AND CRITERIA

Model: APST4S1P-34T																															
Type: Lithium-ion battery 4S1P NCR18650B 14,4V 3,35Ah 48,24Wh																															
1	Manufacturer AccuPower Forschungs-, Entwicklungs- und Vertriebsgesellschaft mbH Pirchäckerstraße 27, 8053 Graz, AUSTRIA Tel.: +43 (316) 26 29 11-0 Mail: info@accupower.at Web: www.accupower.at																														
2	UN38.3 Test lab Vkan Certification & Testing Co. Ltd Add: No.3, Tiantaiyi Road, Kaitai Avenue, Science City, Guangzhou, 510663, CHINA / Tel.: +86-20-32293693 Email: office@cvc.org.cn Web: www.cvc.org.cn																														
3	Test report number: RZUN2018-0795																														
4	Date of test report: 08-05-2018																														
5	Description of cell or battery Lithium-ion battery 4S1P NCR18650B 14,4V 3,35Ah 48,24Wh in shrinking tube with cable and connector, LxBxH: 74 x 19.5 x 70.5mm +/- 1mm / 0,195kg +/- 0,005kg, AccuPower Product Model: APST4S1P-34T																														
6	<div style="display: flex; align-items: center;"> <table border="1" style="margin-right: 20px;"> <thead> <tr> <th colspan="3">UN38.3 Tests performed and successfully passed</th> </tr> <tr> <th>Performed test</th> <th></th> <th>Result</th> </tr> </thead> <tbody> <tr><td>38.3.4.1 / T1</td><td>Altitude Simulation</td><td>Passed</td></tr> <tr><td>38.3.4.2 / T2</td><td>Thermal Test</td><td>Passed</td></tr> <tr><td>38.3.4.3 / T3</td><td>Vibration</td><td>Passed</td></tr> <tr><td>38.3.4.4 / T4</td><td>Shock</td><td>Passed</td></tr> <tr><td>38.3.4.5 / T5</td><td>External Short Circuit</td><td>Passed</td></tr> <tr><td>38.3.4.6 / T6</td><td>Impact / Crush</td><td>Passed</td></tr> <tr><td>38.3.4.7 / T7</td><td>Overcharge</td><td>Passed</td></tr> <tr><td>38.3.4.8 / T8</td><td>Forced Discharge</td><td>Passed</td></tr> </tbody> </table> <div style="display: flex; align-items: center;">  <div> <p>Transportation Safety Test passed for:</p> <input checked="" type="checkbox"/> Cargo Aircraft only <input checked="" type="checkbox"/> Sea  <input checked="" type="checkbox"/> Road   </div> </div> </div>	UN38.3 Tests performed and successfully passed			Performed test		Result	38.3.4.1 / T1	Altitude Simulation	Passed	38.3.4.2 / T2	Thermal Test	Passed	38.3.4.3 / T3	Vibration	Passed	38.3.4.4 / T4	Shock	Passed	38.3.4.5 / T5	External Short Circuit	Passed	38.3.4.6 / T6	Impact / Crush	Passed	38.3.4.7 / T7	Overcharge	Passed	38.3.4.8 / T8	Forced Discharge	Passed
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7	Edition of UN Manual of used test and criteria: Rev.6																														
8	Assembled Battery Testing Requirements: not applicable																														
9	Name and title of signatory/ company stamp  ACCU POWER Forschungs-, Entwicklungs- und Vertriebsgesellschaft mbH. Pirchäckerstraße 27, A-8053 Graz, AUSTRIA Tel: +43 (0)316 - 262911 10 - Fax: 262911 36 info@accupower.at, www.accupower.at  Ing. Issam Al-Abassy / Application Engineering Manager																														