



Battery packaging

Load carriers certified
in accordance with ADR/RID/IMDG

Safely transport and store lithium batteries



Play it safe – with certified battery packaging from the thermoforming specialist

Pack lithium batteries safely

Lithium batteries are now the standard when it comes to energy storage devices. They are used in electric vehicles, e-bikes, machines, tools, smartphones or as stationary energy storage systems for renewable energy. However, in international transport law, lithium cells and lithium batteries are classified as hazardous and are subject to

legislation for the transport of dangerous goods. There are therefore strict regulations for their packaging, labelling and load securing. We would be happy to advise you on special provisions and packaging instructions, and to develop a packaging solution that meets your requirements.



Certified load carriers for almost **every battery condition**

UN numbers (excerpt)

- UN 3480 Lithium-ion batteries
- UN 3481 Lithium-ion batteries contained in or packed with equipment
- UN 3090 Lithium metal batteries
- UN 3091 Lithium metal batteries contained in or packed with equipment



01 Prototypes & small series

Provisions and instructions for transporting prototypes and pre-production batches of up to 100 lithium cells or batteries:

- + SP 310
- + P 910
- + LP 905



02 UN 38.3 tested batteries

Provisions and instructions for lithium cells and batteries with a nominal energy > 20/100 Wh or 1/2 g Li as well as testing in accordance with UN test series 38.3:

- + P 903
- + LP 903



Lithium cells and lithium batteries have been classified as Class 9 “Miscellaneous dangerous substances and objects” since 2009.



Batteries defective or damaged

Provisions and instructions for transporting damaged or defective lithium cells and batteries:

+ SP 376

+ P 908

+ LP 904



Batteries with safety-critical defect

Provisions and instructions for damaged or defective batteries that pose a hazard under normal conditions of carriage:

+ SP 376

+ P 911

+ LP 906



Disposal & recycling

Provisions and instructions for lithium batteries being transported for disposal or recycling:

+ SP 377

+ P 909

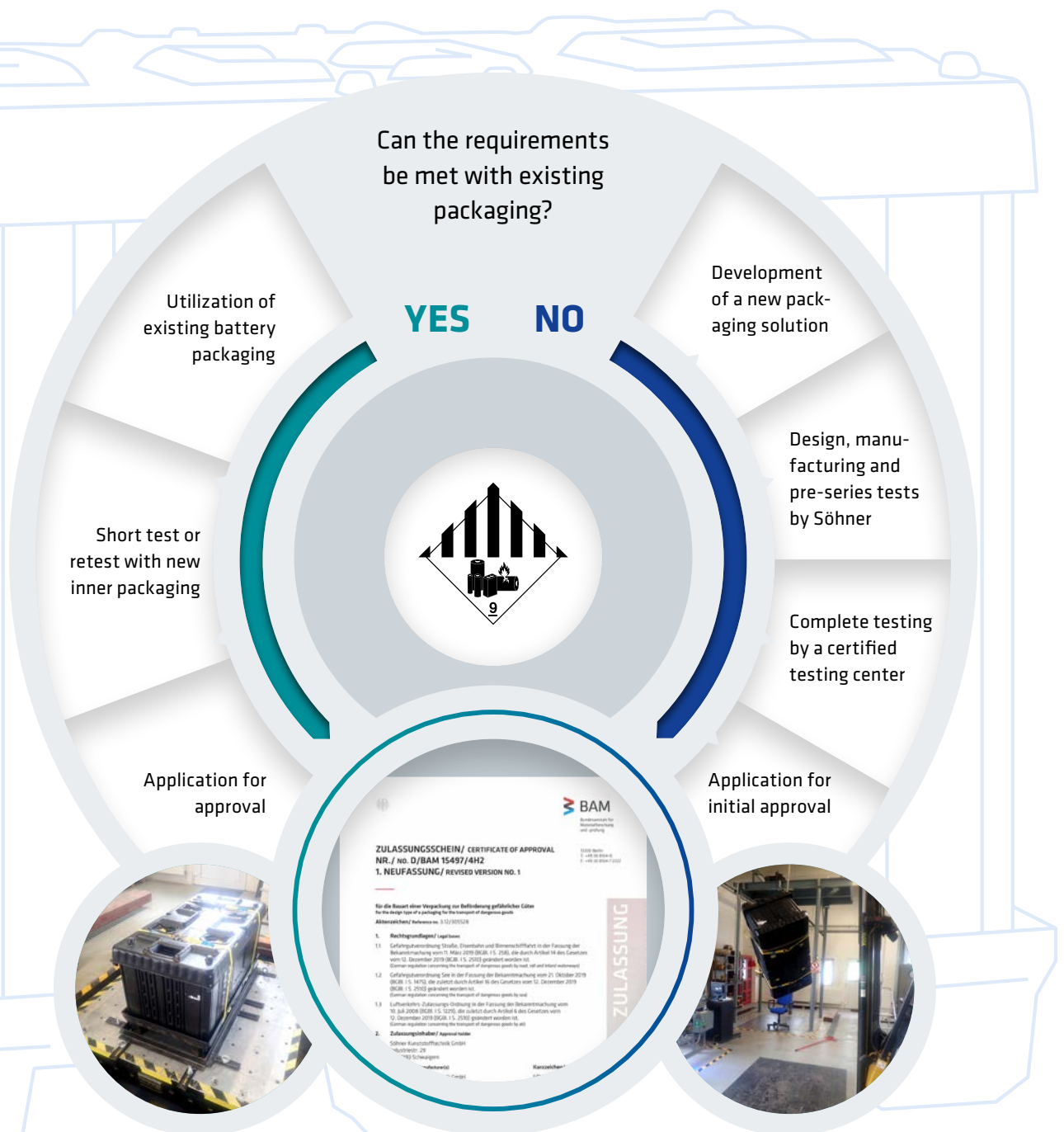
Approval required? No problem!

We find the perfect packaging solution for every battery

Individual advice and packaging development

We have many years of experience in designing, developing and manufacturing robust plastic hazardous goods packaging. Whether you want to transport lithium cells or lithium batteries, individual modules or battery packs, prototypes, series or end-of-life batteries, we can provide you with the right battery packaging.

Our packaging solutions always comply with the applicable international regulations for the transportation of lithium cells and batteries: by road (ADR), by rail (RID) and by sea (IMDG Code). Depending on requirements, approval is granted for packing group I, II or III as well as solid plastic boxes (4H2) or large plastic packaging (50H).

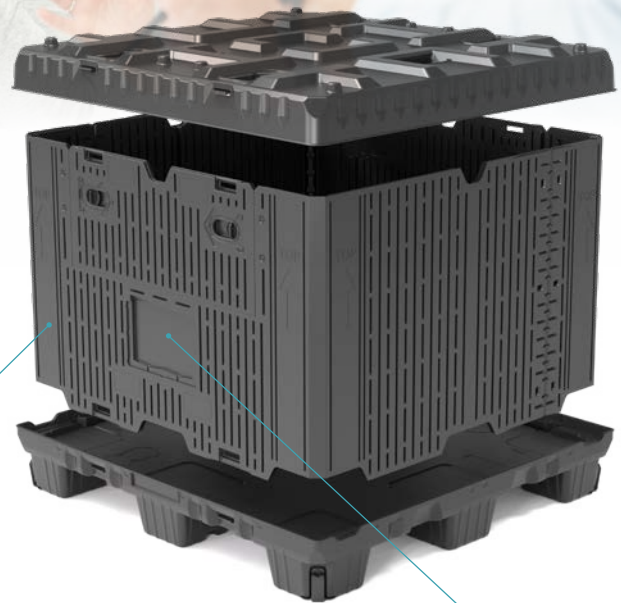




Transport container for large batteries

Our MegaPack JUMBO systems are approved as plastic hazardous goods packaging for the storage and transportation of large lithium batteries, e.g. for cars, industrial trucks or boats. Thanks to their double-walled design, the robust large load carriers withstand the high requirements. They can be folded when empty to save space.

- + Safe protection against thermal runaway and exothermic reaction
- + Approval as solid plastic box (4H2) or large plastic packaging (50H)
- + Wide range of containers available
- + Custom inner packaging
- + Development of new sizes
- + Can be used as outer packaging



**Example
UN number**

4H2/Y451/S/22/D/
BAM 15497-SÖHNER

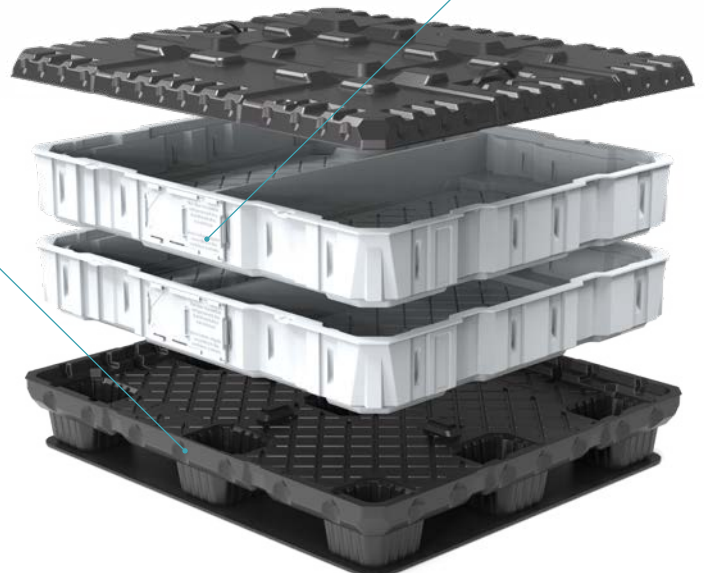
**Labeling
Hazardous goods
class 9**



Load carriers for cells, modules and small batteries

Individual thermoformed containers have a sturdy frame construction, precise and accurate inlays and system-specific centering options. The load carriers are ideal for transporting lithium cells and battery modules to assembly lines as well as for shipping smaller batteries.

- + Approval as single or system packaging (4H2)
- + High protection against damage
- + No additional inner packaging required
- + Suitable for automated handling



More options, more safety. Söhner delivers both.



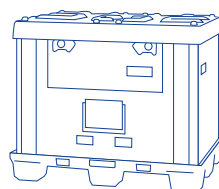
Our lithium battery solutions

We offer a wide range of robust, foldable transport containers as well as thermoformed load carriers and individual packaging solutions with UN approval - for maximum safety during transport and efficient production processes.

You can find further insights into our robust transport containers in the video – simply scan the QR code.



	MegaPack JUMBO ADR 240	MegaPack JUMBO ADR 625	MegaPack JUMBO ADR 790
Packaging type	Transport container	Transport container	Transport container
Material	HDPE	HDPE	HDPE
External dimensions (LxWxH)	1140 x 595 x 635 mm	1200 x 800 x 932 mm	1200 x 1000 x 1000 mm
Internal dimensions (LxWxH)	1060 x 515 x 443 mm	1134 x 734 x 752 mm	1092 x 892 x 812 mm
Volume	240 l	625 l	790 l
Tare	31 kg	50 kg	51 kg
Filling material	Depending on requirements	Depending on requirements	Depending on requirements
Max. payload	400 kg	600 kg	793 kg
Max. gross weight	438 kg	656 kg	850 kg
Approved for	<ul style="list-style-type: none"> + Prototypes + UN 38.3 tested batteries + Defective or damaged batteries + Batteries for disposal and recycling 	<ul style="list-style-type: none"> + Prototypes + UN 38.3 tested batteries + Defective or damaged batteries 	<ul style="list-style-type: none"> + Prototypes + UN 38.3 tested batteries + Defective or damaged batteries
UN packaging code	UN4H2	UN50H	UN50H
Type approval	Packing group II	Packing group I	Packing group I
Packing instructions	P 910, P 903, P 908, P 909	LP 905, LP 903, LP 904	LP 905, LP 903, LP 904
ADR special provisions	SP 310, SP 376, SP 377	SP 310, SP 376	SP 310, SP 376
Features	<ul style="list-style-type: none"> + Foldable + Stackable + Ground clearance for easy lifting 	<ul style="list-style-type: none"> + Foldable + Stackable + Ground clearance for easy lifting 	<ul style="list-style-type: none"> + Foldable + Stackable + Ground clearance for easy lifting



MegaPack JUMBO ADR 975	MegaPack JUMBO ADR 1580	Custom
Transport container	Transport container	Individual solution
HDPE	HDPE	To be defined
2250 x 1140 x 635 mm	1700 x 1140 x 1157 mm	Up to 2800 x 1800 mm
2140 x 1030 x 443 mm	1590 x 1030 x 965 mm	-
975 l	1580 l	Up to 3000 l / 3 m³
79 kg	82 kg	-
Depending on requirements	Depending on requirements	Depending on requirements
750 kg	712 kg	Up to 850 kg
835 kg	800 kg	
<ul style="list-style-type: none"> + Prototypes + UN 38.3 tested batteries + Defective or damaged batteries 	<ul style="list-style-type: none"> + Prototypes + UN 38.3 tested batteries + Defective or damaged batteries 	<ul style="list-style-type: none"> + Prototypes + UN 38.3 tested batteries + Defective or damaged batteries + Safety-critical defective batteries + Batteries for disposal and recycling
UN50H	UN50H	UN4H2 or UN50H
Packing group II	Packing group I	Packing group I, II, III
LP 905, LP 903, LP 904	LP 905, LP 903, LP 904	P 903, P 908, P 909, P 910, P 911, LP 903, LP 904, LP 905, LP 906
SP 310, SP 376	SP 310, SP 376	SP 310, SP 376, SP 377
<ul style="list-style-type: none"> + Foldable + Stackable + Ground clearance for easy lifting 	<ul style="list-style-type: none"> + Foldable + Stackable + Ground clearance for easy lifting 	



Play it safe now

With UN-certified
plastic battery packaging

**If you have additional questions about our packaging solutions
for lithium batteries, please do not hesitate to contact us.**

Our hazardous goods experts will be happy to provide consultations and help you find
the right battery packaging for your requirements.



www.soehner.de

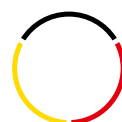
Everything about our company,
our products and services.

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**Engineered and
Made in Germany**