Heat Shrink Film 89mm

Heat shrink film for battery packs
User manual



Read the safety instructions in Chapter 2.1 before use and keep this manual for future reference.

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1. Product description

1.1 What it is for

Heat Shrink Film 89mm is a transparent, slightly blue-tinted film that shrinks when heated and fits tightly around the object it has been slipped over. In FPV and RC modelling it is used mainly for **additional protection of battery packs** or for **replacing the original, already damaged wrap** of a battery.

The film width is suitable for **1300–1500 mAh 4S** or **1300 mAh 6S** batteries. The film is thicker than the 70 mm variant. Thanks to its transparency, the battery label remains easy to read even after the new wrap has been applied.



Heat Shrink Film 89mm – transparent, slightly blue-tinted

1.2 Specifications and package contents

Product designation	Heat Shrink Film 89mm (Smršťovací fólie 89mm)
Type	heat shrink film, transparent, slightly blue-tinted
Film width	89 mm
Suitable for batteries	1300–1500 mAh 4S or 1300 mAh 6S
Thickness	thicker than the 70 mm variant
Package contents	1 m of film
Not included	battery, heat gun, scissors and other tools

2. Use

2.1 Safety instructions

LiPo and LiHV batteries can catch fire if overheated or mechanically damaged. When working with the film, heat them only briefly and with care.

- Only fit the film onto a battery that is **disconnected** from both the model and the charger. Ideally, the battery should be at storage charge – **3.8 V/cell** (15.2 V for 4S, 22.8 V for 6S), never freshly charged or still warm after a flight.
- Never re-wrap a battery that is **swollen, dented, punctured or otherwise damaged**. A new wrap only hides the damage – retire such a battery (see Chapter 3.2).
- Use a **heat gun** with temperature control or another source of hot air to shrink the film. **Do not use an open flame** (lighter, torch).
- Keep the air stream moving at all times and do not aim it at one spot for long. If the battery becomes noticeably warm to the touch, stop and let it cool down.
- Work on a non-flammable surface, in a well-ventilated area and away from flammable materials. Do not touch the heat gun nozzle or freshly shrunk film – risk of burns.
- When removing the old wrap, **never use a sharp knife against the cell bodies**. Cutting into the cell pouch can cause a short circuit or fire.
- Keep out of the reach of children.

2.2 What you will need

- a battery of suitable size (see Chapter 1.2),
- a heat gun,
- scissors,
- a non-flammable work surface.

2.3 Procedure

① Check the battery – it must be disconnected, undamaged and not swollen. If you are replacing a damaged wrap, remove it carefully without sharp tools pointed at the cells, or slip the new film over the old one.

② Slip the film onto the battery **as a trial fit** and check that it slides on freely. The leads (main and balance) must come out through the open end.

③ Measure the length so that the film overlaps the end faces of the battery at both ends, and cut it straight across with scissors.

④ Slip the film onto the battery and align it so that the overlap is the same at both ends.

⑤ First heat the middle section with hot air so that the film settles and does not slide, then work towards both ends. Keep the heat gun moving and rotate the battery so that the film shrinks evenly.

⑥ Finally, heat the overlaps at the ends so that they pull over the end faces of the battery. Do not aim hot air at the leads and connectors for long.

⑦ Let the battery cool down to room temperature. Only then charge or use it.

※ If the film wrinkles in any spot, briefly reheat it from a greater distance. Overheating one spot may melt through the film.

2.4 Storage

Store unused film in a dry, shaded place away from heat sources – heat shrinks it even when it is not on a battery. Do not fold the film into sharp creases.

3. Information for the EU and Czech Market

3.1 Importer and responsible person in the EU

The product is placed on the European Union market by the importer stated below, who is at the same time the responsible person within the meaning of Article 16 of Regulation (EU) 2023/988 of the European Parliament and of the Council on general product safety (GPSR).

Importer / responsible person in the EU	Rotorama, s.r.o.
Company ID (IČO)	051 57 692
VAT ID (DIČ)	CZ05157692
Registered office	Okrajová 1351, 674 01 Třebíč, Czech Republic
E-mail	info@rotorama.cz
Phone	+420 252 252 098
Website	www.rotorama.com

3.2 Disposal

- The film and its offcuts are not electrical equipment. Dispose of them in accordance with the waste sorting rules applicable where you use the product; if they cannot be placed in separate plastic collection, they belong in mixed municipal waste. Do not burn the film.
- Sort the packaging according to its material.
- A retired or damaged **battery must not be thrown into waste**. Hand it over at a take-back point for batteries and accumulators or at a retailer; take-back is free of charge for the end user. Before handing it over, cover its connectors with insulating tape.
- The information in this chapter describes the situation in the Czech Republic. If you use the product in another country, follow the regulations of the country in which you use it.

4. Warranty and rights arising from defective performance

The rights and obligations of the contracting parties are governed by Czech law, in particular by Act No. 89/2012 Coll., the Civil Code, and Act No. 634/1992 Coll., on consumer protection.

- The seller is liable to the buyer for the product being free of defects on receipt. If the buyer is a consumer, a defect may be notified **within two years of receipt** of the product (Section 2165 of the Civil Code).
- If a defect appears within **one year** of receipt, the product is deemed to have been defective already at the time of receipt (Section 2161(5) of the Civil Code).
- When purchasing online, a consumer has the right to **withdraw from the contract within 14 days** of receiving the goods without giving a reason (Section 1829 of the Civil Code).
- Claims should be made with the retailer from whom you purchased the product. The importer's contact details are given in Chapter 3.1.
- The competent body for out-of-court settlement of consumer disputes is the **Czech Trade Inspection Authority**, Štěpánská 796/44, 110 00 Prague 1, www.coi.cz.