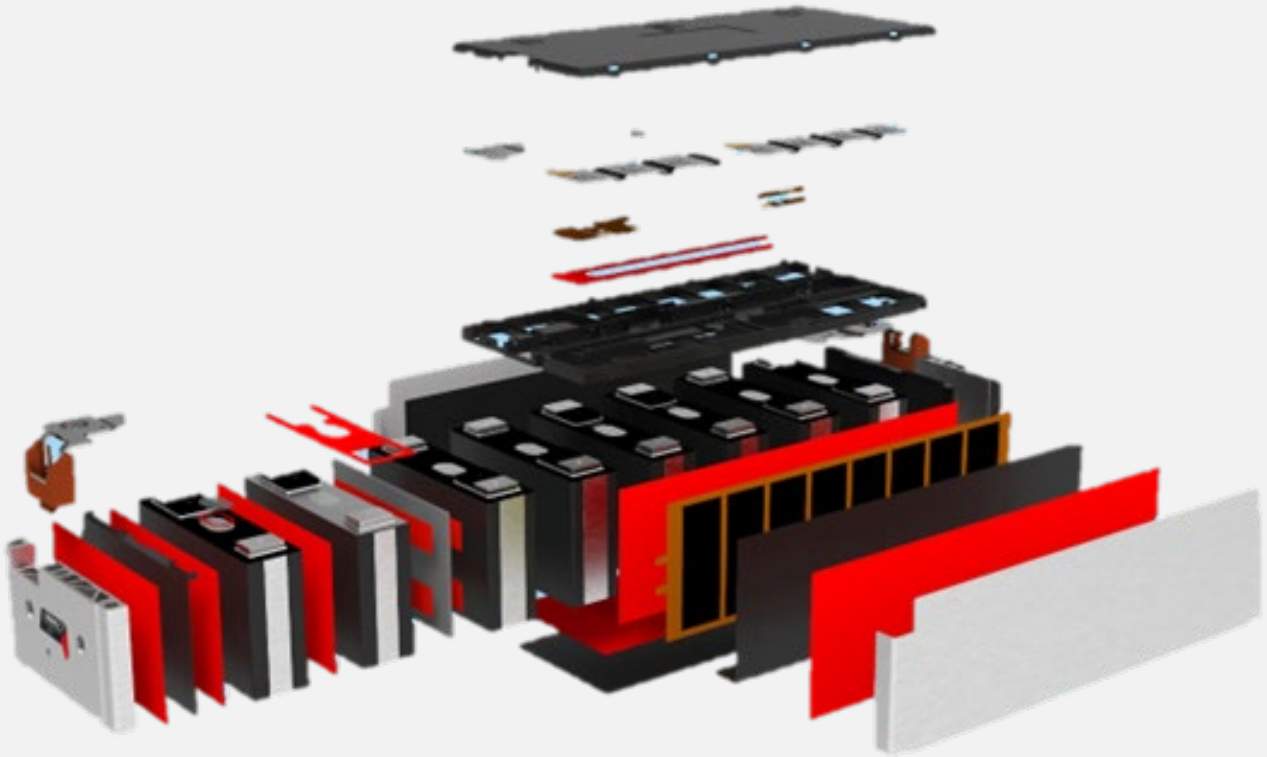


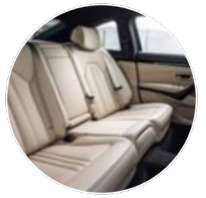
Cell wrapping process

Lamination of parts in EV Battery

Seals

Headliner Assembly

Airbag Applications



Conventional Interior

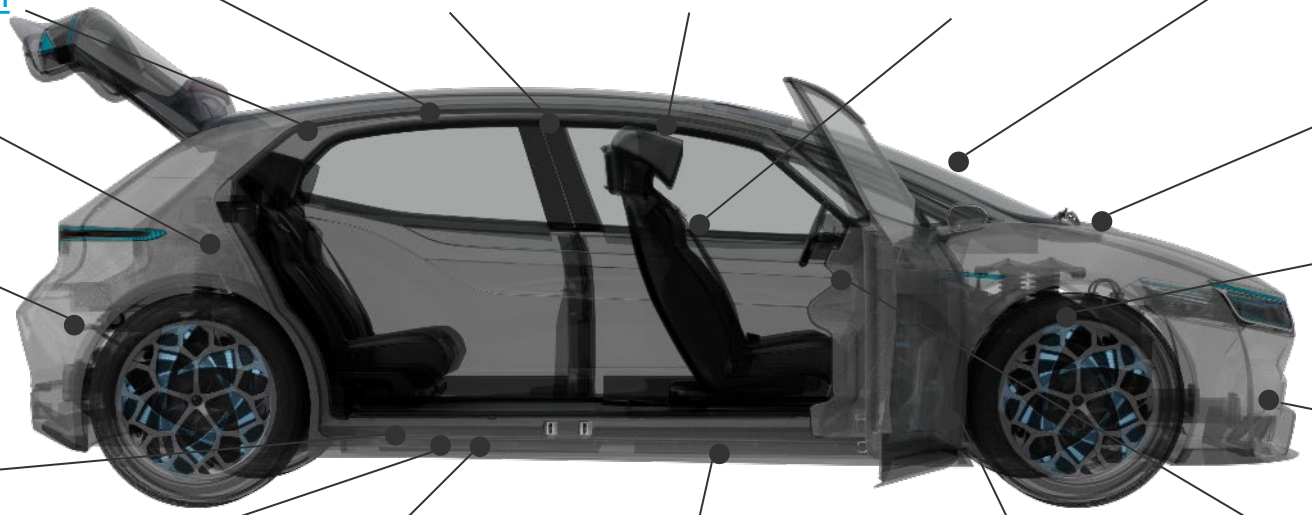
Glass

Car Body Protection

Security Labeling

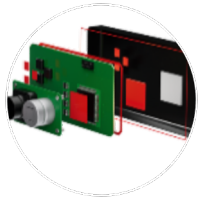
Paint Shop Design

Exterior Attachment Parts



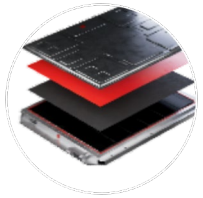
Electrical Systems

Battery Mounting



ADAS Applications

Fire Protection



Electrical Insulation

Hole Covering

Paint Protection

Human Machine Interface

tesa Products

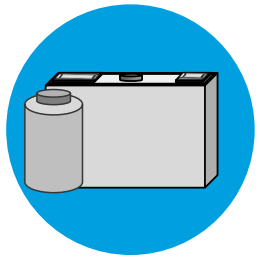
Design variation

Die-cuts	Spools	Log Rolls	Cut Rolls
Pre-cut shapes of adhesive tape on roll or on sheet	For highly efficient and automated endless application	For various die-cut designs	For flexible individual and aftermarket applications
			

Electrical Insultation

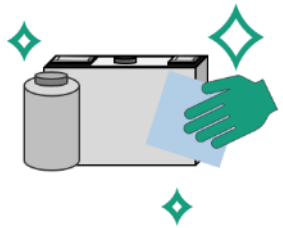
Lamination Of Parts In EVB

1. Pre-treatment

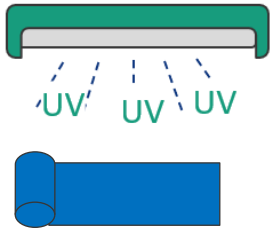


*optional

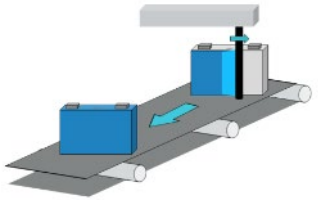
2. Cleaning



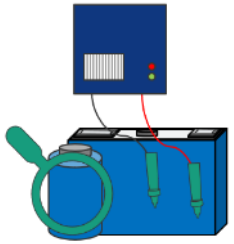
3. Activation



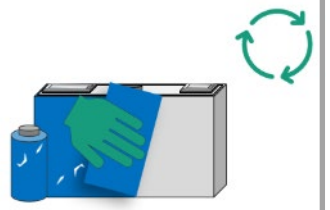
4. Wrapping



5. End-of-line testing



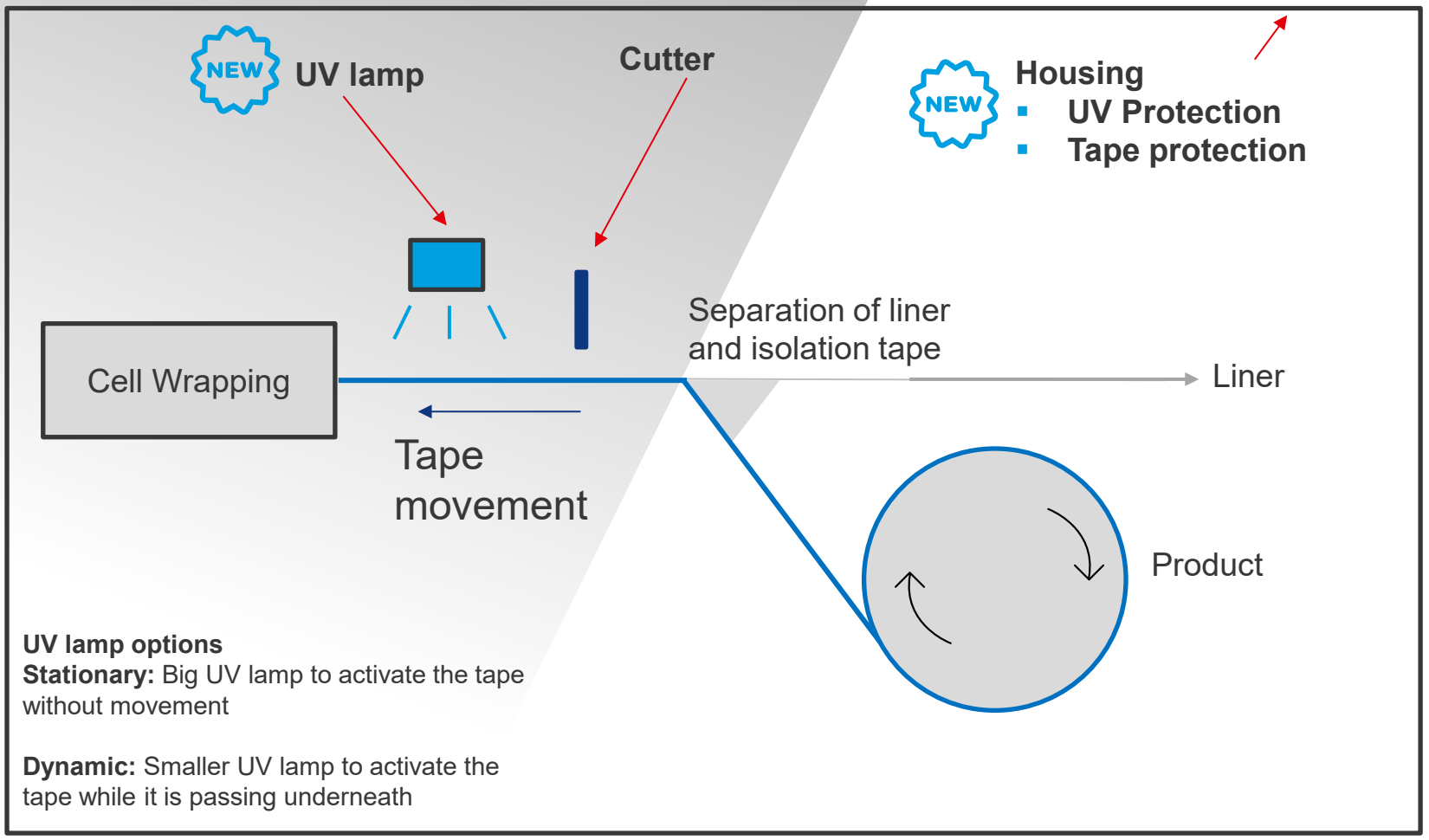
6. Rework



High process speed and yield	Easy integration concepts for existing wrapping equipment	CW machine suppliers available for immediate trials	Dedicated application process team / support available

Source: Fraunhofer-Einrichtung Forschungsfertigung Batteriezelle FFB

Equipment for lamination & UV-activation

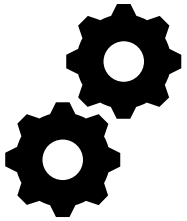


UV lamp options
Stationary: Big UV lamp to activate the tape without movement

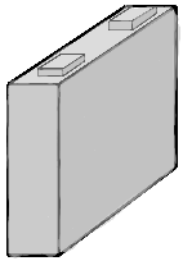
Dynamic: Smaller UV lamp to activate the tape while it is passing underneath

Electrical Insultation

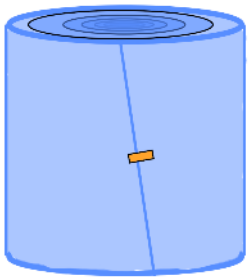
Influencing Factors In The Lamination Process



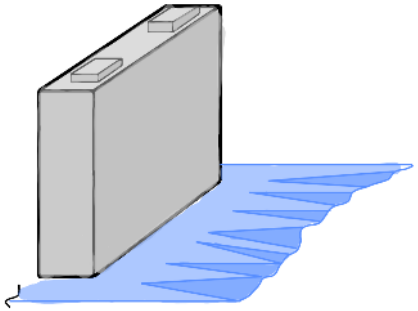
Process



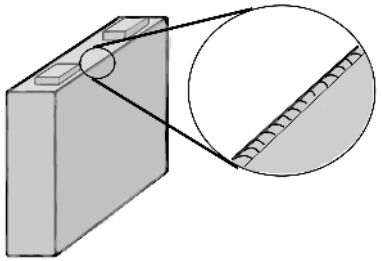
Cell / Substrate



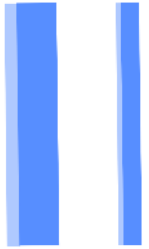
Foils



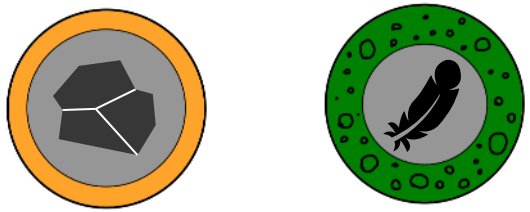
Controll of tape



Welding seams / Radius

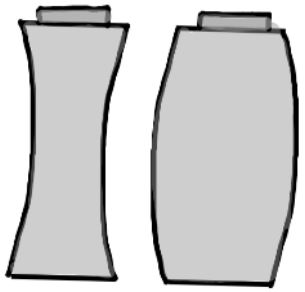


Foil thickness / Adhesive layer



Wrong roll material

Dirt / grease



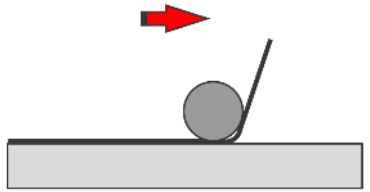
Geometrie

Electro static

Dirt

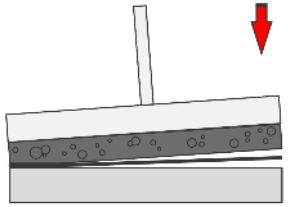
Electrical Insultation

Application Methods



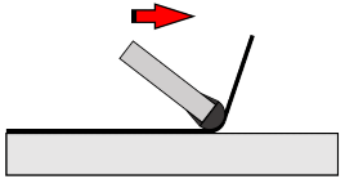
Roller

- Mainly rubber or foam rollers
- Highly recommended



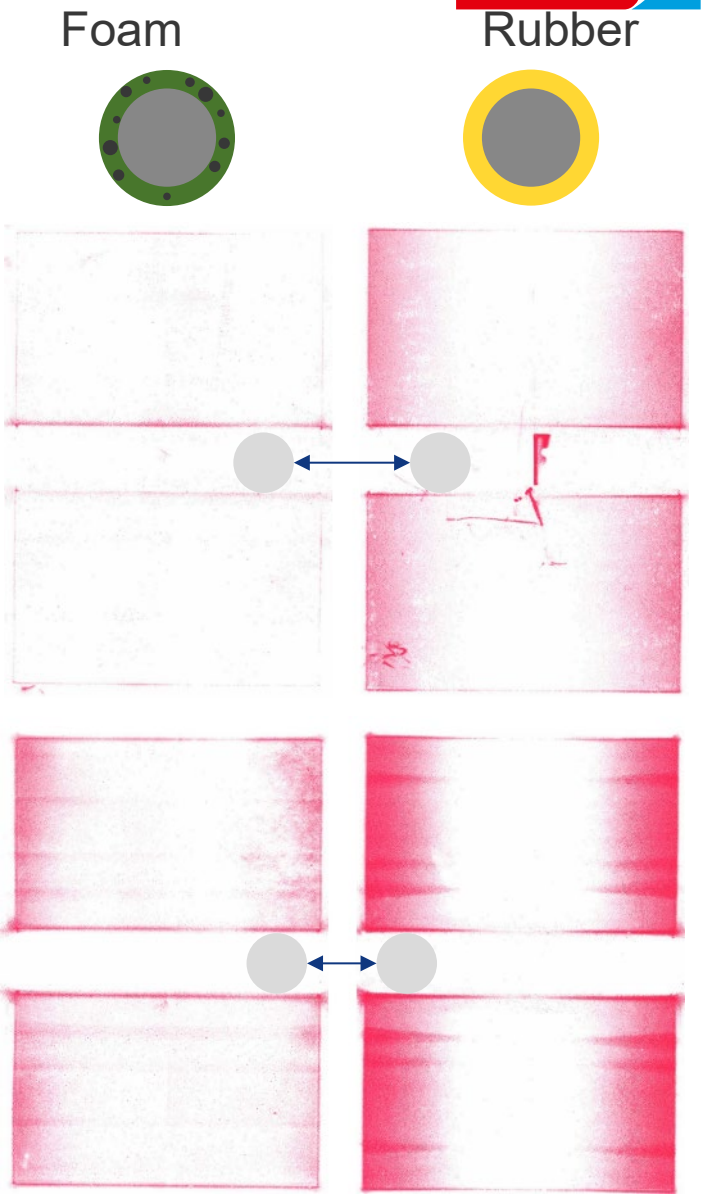
Stamp

- In some cases a convex shape is required
-High force needed



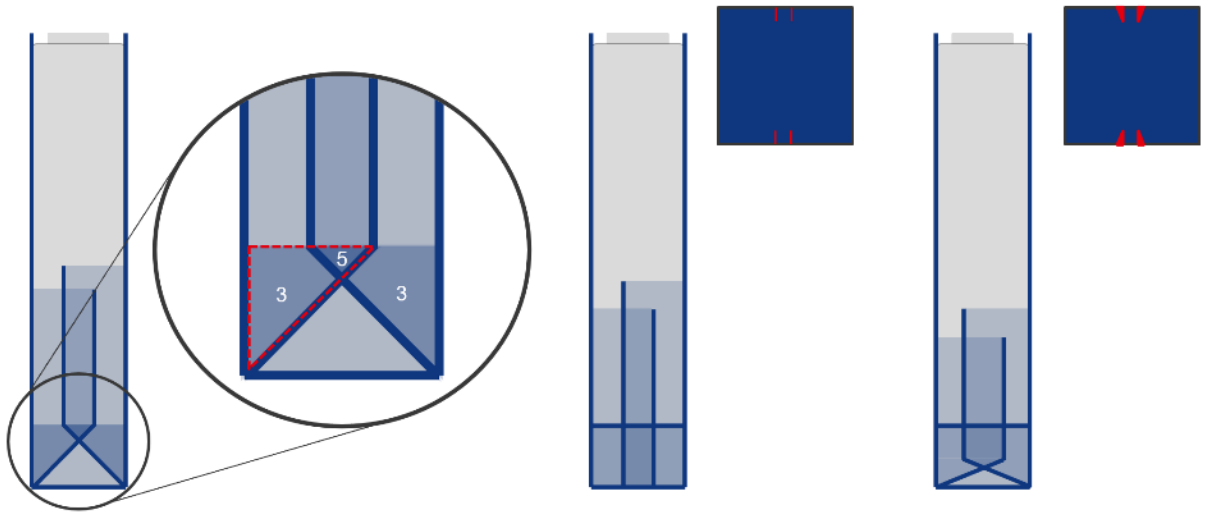
Squeeges

- Danger of displacing adhesive
- If there are contamination, they will be pulled along and cause scratches

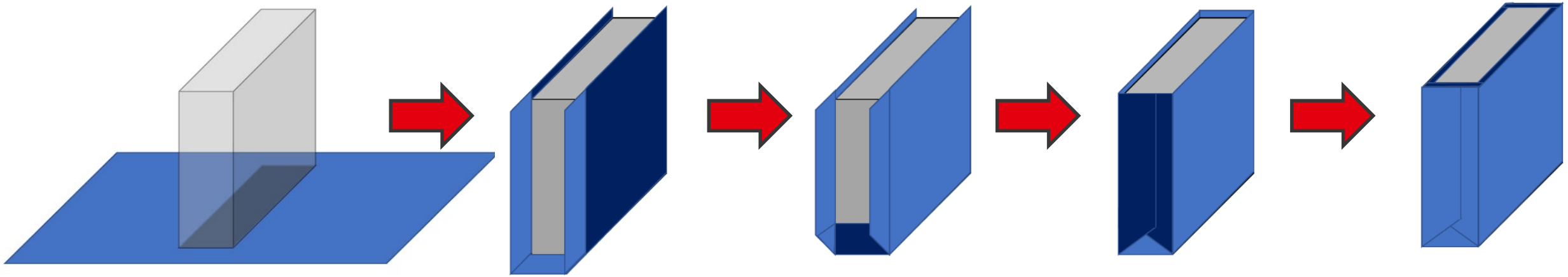


Electrical Insultation

Tape Design



- With cutting
- Lower thickness on the sides
- One cutting step more

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