

# Development of Thermoplastic Floor Panel



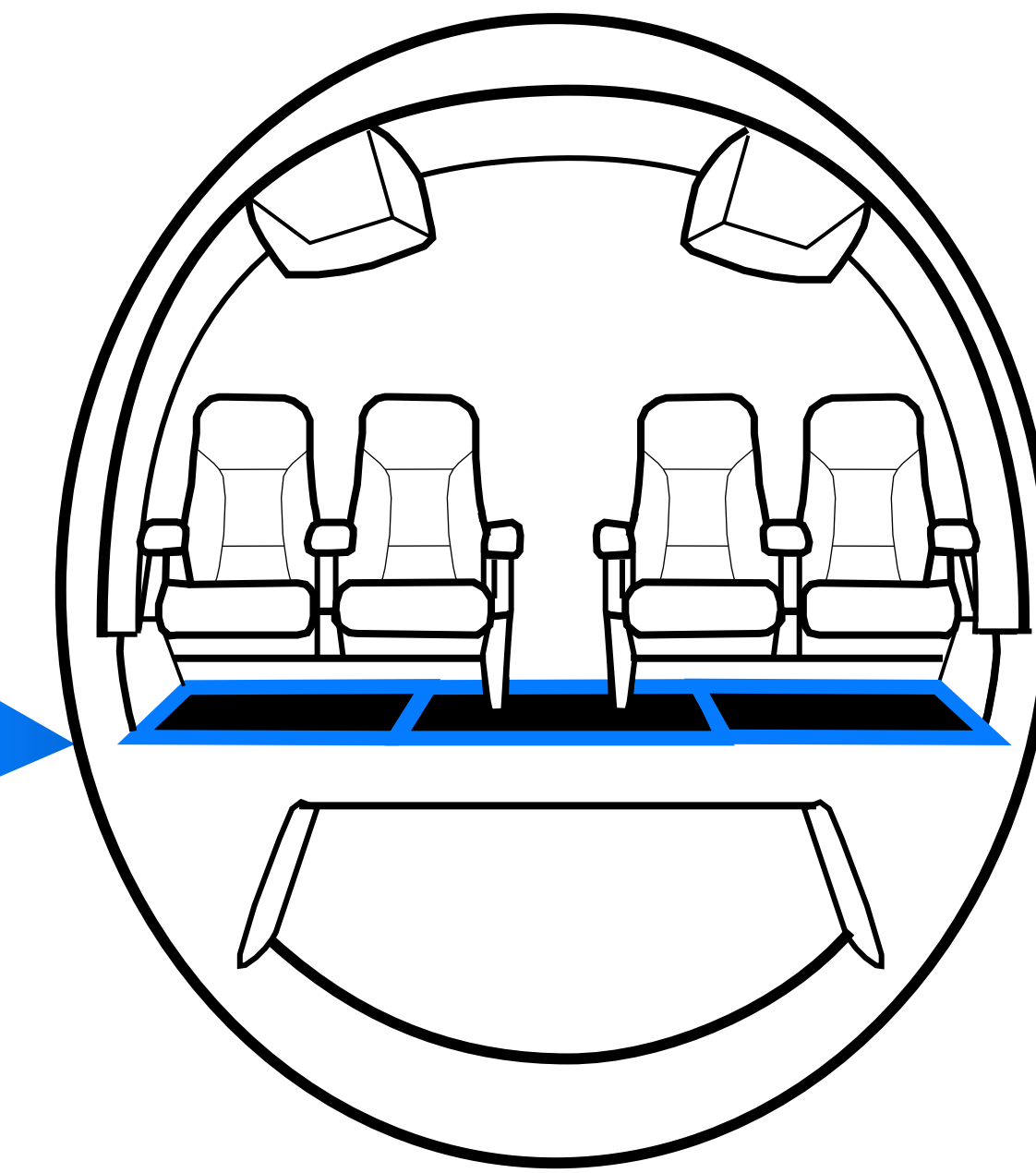
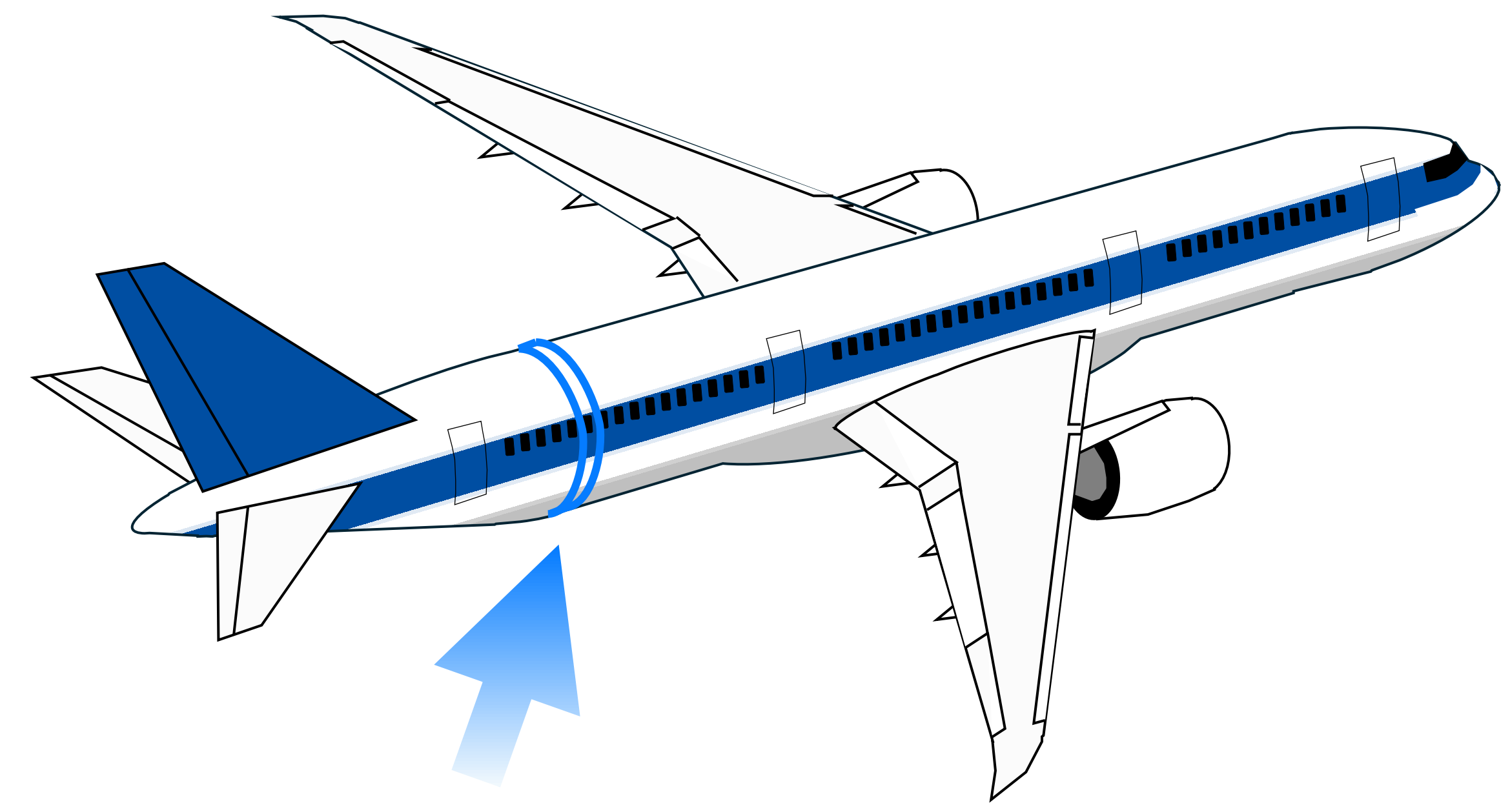
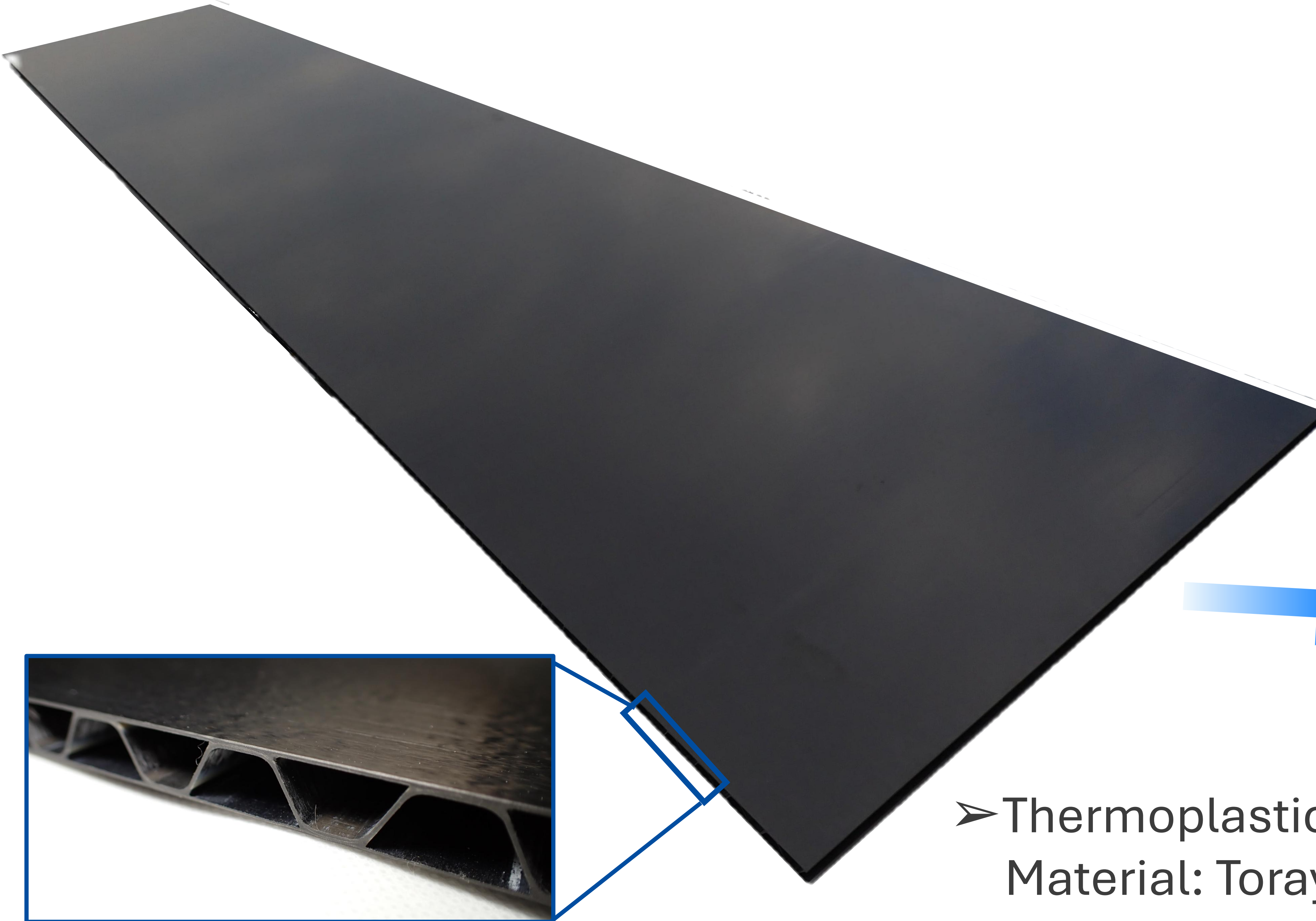
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## ● Main Target

Floor Panel for Next-generation and Existing Aircraft



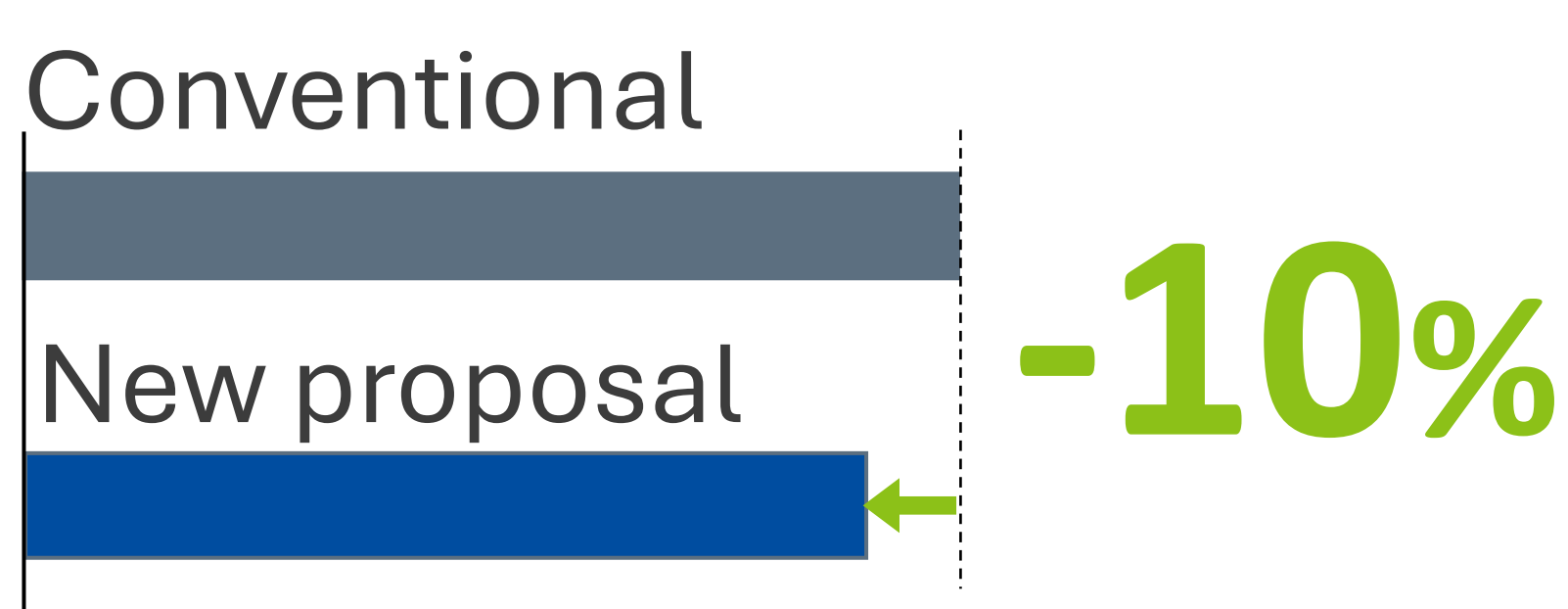
Enlarged view

➤ Thermoplastic Corrugated Sandwich Panel  
Material: Toray Cetex® TC1225  
(Thermoplastic UD tape)  
Size: 2720 mm × 500 mm × 10 mm

## ● Technical Advantages

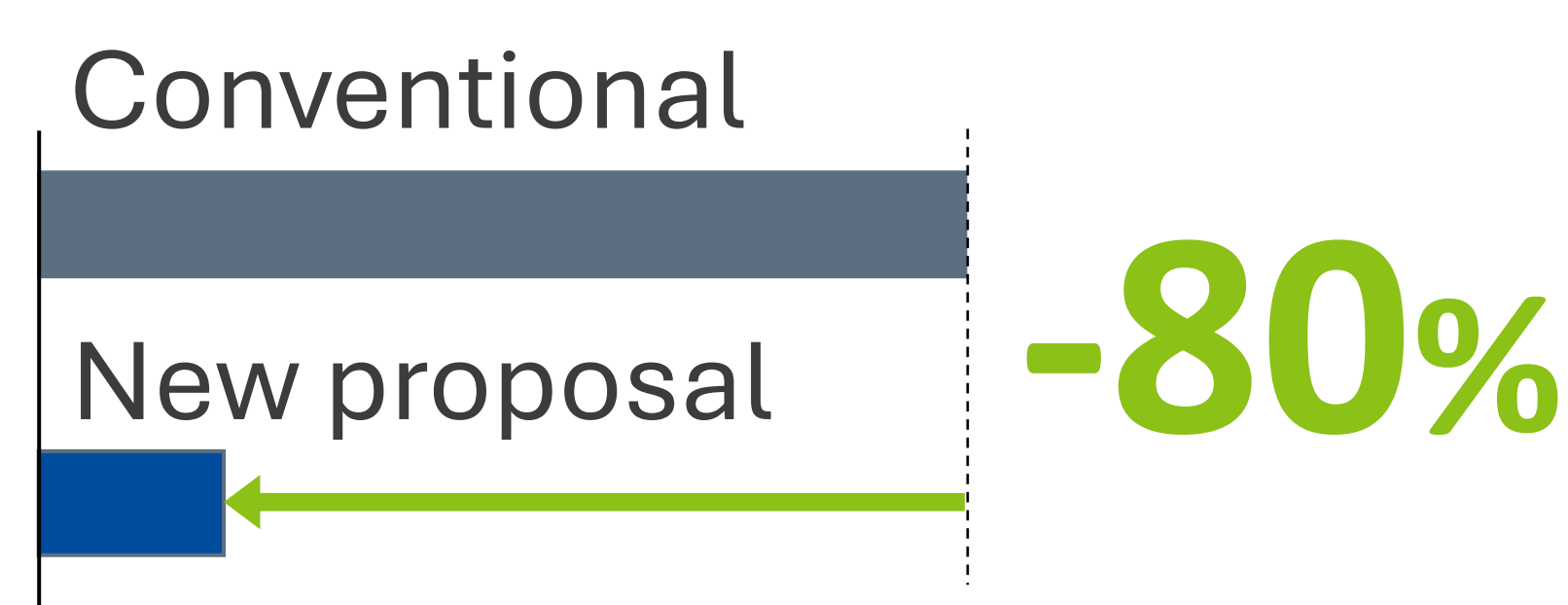
Conventional	New proposal
Thermoset Honeycomb sandwich panel ✓ Adhesive-bonded    ✓ Multi-material Structure	Thermoplastic Corrugated sandwich panel ✓ Adhesive-free    ✓ Mono-material Structure
<p>Thermoset CFRP Epoxy film adhesive Aramid honeycomb core</p> <p>✓ <b>Low Recyclability</b></p>	<p>Thermoplastic CFRP</p> <p>✓ <b>High Recyclability</b></p>
Replace	

### ➤ Weight



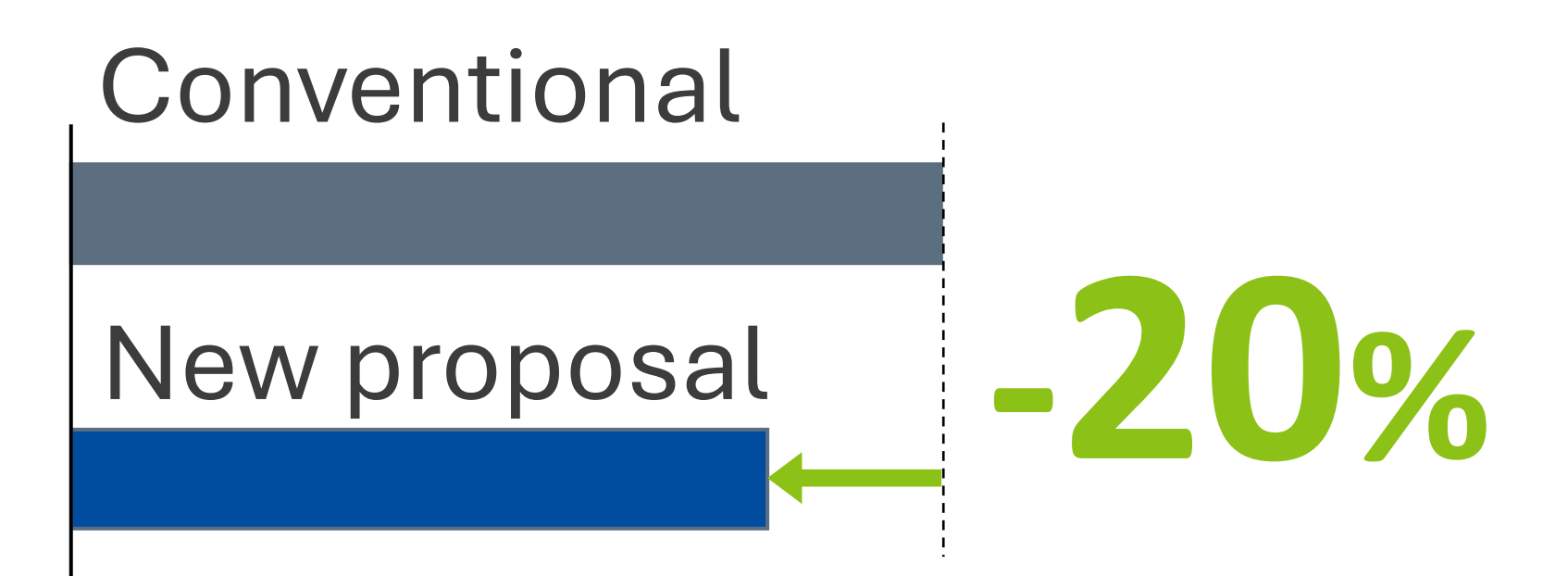
◆ High Bending Strength Structure

### ➤ Cycle time



◆ Out of Autoclave  
◆ Easy Automation

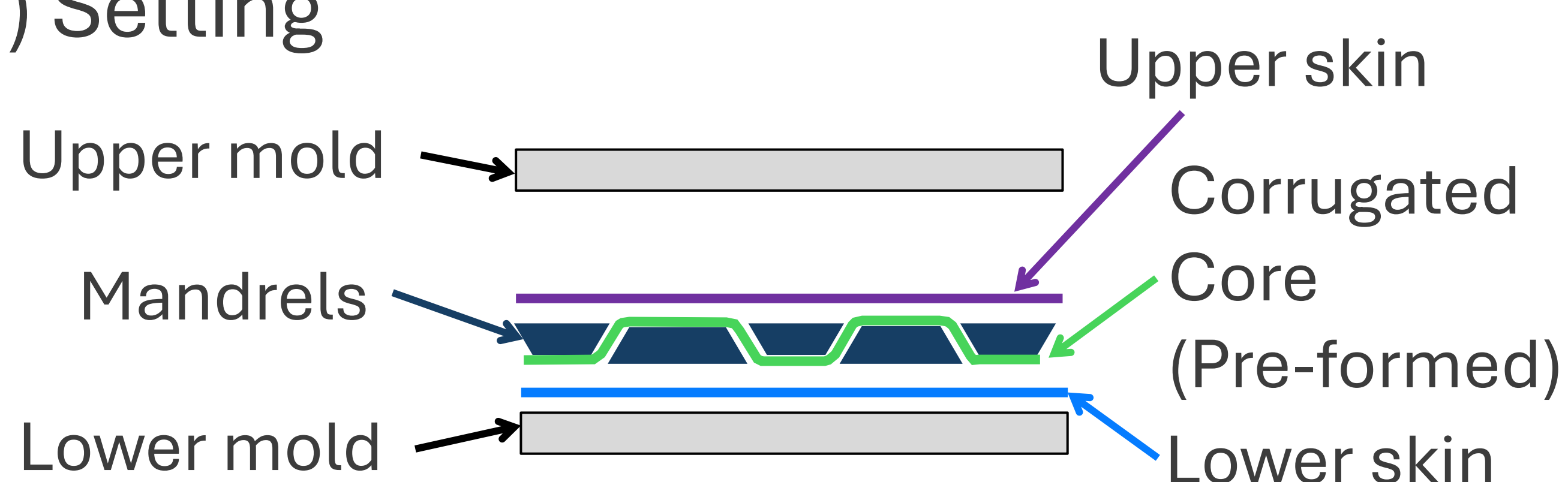
### ➤ Cost



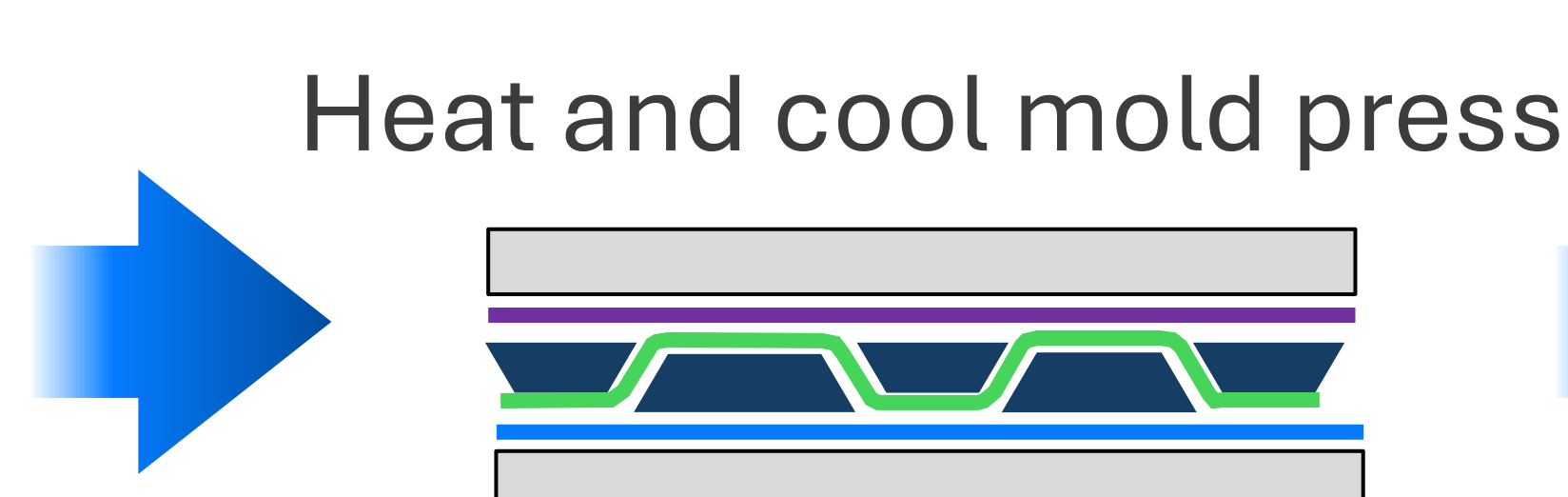
◆ No freezer storage  
◆ Long storage life  
◆ Waste reduction

## ● Manufacturing process

### 1) Setting



### 2) In mold welding



### 3) Demold mandrels

