



Master Pack-Out Matrix: Medium 5mm Fiber Box

RENEW · Molded fiber cold-chain packaging

Directional benchmark: validate lane, payload, and handling before rollout.

TRUE INTERNAL VOLUME 10.5 L (11.1 qt) usable	MATERIAL THERMAL RESISTANCE US R-1.8 (AKD barrier)	COOLANT STANDARD Wet ice or commercial gel packs	CRUSH RESISTANCE 100 kg load No deformation in PDS; recommended working load: 25 kg	STOCK FORMATS Medium 11L: 391 × 291 × 170 mm (~11 lbs payload) Large 26L: 591 × 391 × 170 mm (~22 lbs payload) Tier 1: Stock qualification (ships in 48h)
---	---	---	---	--

SHIPPING SCENARIO (US)	ENVIRONMENTAL LOAD	GEL PACKS	MAX PRODUCT VOL.	MAX FISH PAYLOAD
Controlled reefer LTL (US foodservice · in-market reference)	24 hrs: 40F truck + 4 hrs of 80F excursion	2.6 lbs (1.3 qt)	9.8 qt	~19.5 lbs
Ocean freight (reefer container · starting point · confirm in trial)	14-30 days: 34F container + port excursions	2.6 lbs (1.3 qt · confirm in trial)	9.8 qt (confirm in trial)	19.5 lbs (confirm in trial)
Air cargo (IR-coated fiber, enhanced barrier · starting point · confirm in trial)	Short-haul air: moderate belly-hold conditions with reduced solar exposure vs. uncoated (indicative)	Above reference (lane-dependent · confirm in trial)	Below reference (confirm in trial)	Below reference (confirm in trial)
Air cargo (standard uncoated fiber · higher-challenge · confirm in trial)	Short-haul air: moderate hold + higher ground-side thermal stress than IR-coated row (indicative)	Above IR-coated air row (lane-dependent · confirm in trial)	Below IR-coated air row (confirm in trial)	Below IR-coated air row (confirm in trial)
Non-reefer ambient (UPS / FedEx Ground · highest-challenge · confirm in trial)	24 hrs: uncontrolled 68F-75F ambient transit	6.0 lbs (3.0 qt · confirm in trial)	8.1 qt (confirm in trial)	Payload range TBD (confirm in trial)