

Case Study

Aquatic Life Distributor Finds a More Sustainable Shipping Solution

The Challenge

An aquatic life distributor came to Rocket Industrial looking for a sustainable alternative to the EPS foam packaging that was being used for shipments. The new packaging needed to have the same temperature-controlled performance to keep aquatic life safe during the transportation process.

Goals:

- Eliminate foam packaging and replace it with a more sustainable solution.
- The new packaging material needed to maintain a temperature of 68 - 72°F.

The Rocket Solution

We did a series of tests with various materials, such as bubble liners, cotton liners, and paper pad liners, to determine the best packaging material for transportation. During testing, we simulated fish conditions by putting a temperature sensor in a water bottle.

Testing at 90°F

MFG	Product	Hours Below 80° F	Hours Below 68° F	Lowest Temp.
A	Thermo Bubble	18.5	3	67.5° F
B	Reflected Bubble Liner	19	11	57° F
C	Cotton Liner	25	8	65.7° F
D	Paper Pad Liner	35	18.5	49.4° F
B	Biodegradable Material	29.5	16	51.3° F
E	Insulated Box + Liner	16	0	71.3° F
F	Heavy Duty Liner	17.25	0	72.5° F
G	Layered Paper	7.5	20	64.9° F
H	Recycled Bubble	0	16	71.2° F

Results

After testing, the client implemented paper-insulated packaging to replace the foam-lined boxes. The paper liner performs just as well during transportation to keep the aquatic life safe and meets the client's sustainability requirements.

Testing at 40°F

MFG	Product	Hours Above 68° F
C	Cotton Liner	25
D	Paper Pad Liner	35
B	Biodegradable Material	29.5