

# Insulated Box Liners

## *Protecting What Matters...Temperature Assurance from the Start*

### **PharmaTuff Cut Foam Panels**

6-panel insulated foam boxes frequently provide a quick solution to a new shipper design. The solution is six wire-cut foam panels which can be arranged inside a corrugated outer box which creates an insulated box liner providing thermal protection for all 6 sides of your product.

The simplest cold chain packaging design starts from the inside out beginning with the payload and proceeding outward through the refrigerant, insulation and outer carton to provide a cost effective first article. Using wire-cut foam panels as a starting point helps fine tune the wall thickness, foam density, and insulation combination to provide the best result. This design process produces a pack out which saves space in two ways; Reducing the need for excessive void fill materials often required when trying to fit a product into an off-the-shelf molded shipper; and knocked-down shipping for efficient storage. Once the 6-panel insulated foam box is qualified, an EPS molded shipper with a fixed design can quickly be completed for production. EPS insulated box liners are especially useful for low volume demands, as well as for very large, pallet sized insulated shippers. EFP can customize a fabricated and kitted solution, delivered to your distribution center, 3PL or warehouse knocked-down by component, or assembled and ready for you to pack out your product.

Consider the following factors with any new program:

- Determine the optimum payload size
- Consider product mix variability
- Calculate storage required to maintain sufficient packaging inventory
- Consider current stock molded shipper sizes
- Evaluate the cost of a custom EPS mold
- Assess the ease of making size changes
- Calculate insulation density required
- Determine wall thickness dimension
- Consider dimensional weight in design process

