

Description

The U.S. Army Research, Development, and Engineering Command, Edgewood Chemical Biological Center (ECBC) and Fabricated Packaging Materials, Inc. (FPM) have jointly developed and patented an innovative and low cost packaging system designed for replacement of wood packaging containers and for transport of temperature-sensitive items and goods during shipment and handling. This technology consists of a polystyrene container coated with polyurea to provide a lightweight, high strength, durable container with superior insulating properties. Polyurea is commonly used as a coating for large surface area projects such as tank or truck bed liners. Poly Box containers are designed to effectively protect goods and cargo from external effects of the environment (i.e. entry of water/moisture and extreme temperature changes).

Applications

- Lower cost alternative to cleated-plywood containers
- Temperature and moisture sensitive shipping
- Replacement alternatives to current re-usable shipping containers due to weight issues
- Items or goods that must remain cold conditioned during air/ground transportation and handling

Current Uses of the Poly Box

- Assay Assemblies
- Contaminated Human Remains Transfer Cases
- M18A1 filters

Poly Box Benefits

- Exceed the ASTM D4169 requirements and are able to withstand a vertical load of more than 15,000 pounds
- Protect cargo from external environmental effects
- Superior insulating properties due to low thermal conductivity
- Reduced transportation costs (due to weight)
- Reduced container cost: 66% less than wood cleated boxes
- No special tooling required
- Customizable to almost any size
- Improved user safety with no sharp edges

