**TEST PROTOCOL**

**Objective**
Measure and evaluate the temperature protection performance of each cover when exposed to identical conditions and without the influence of thermal mass (empty box test).

**Pallet Configuration**
- Three pallet loads, 48” x 40” x 48”
- Sixteen empty boxes (24” x 20” x 12”) per pallet
- Four boxes per row

**Products Tested**
- Metallized spunbonded cover with approximate basis weight of 135 g/m² (MSB135)
- Metallized bubble wrap covers with approximate basis weights of 200, 235, and 415 g/m² (MBW200, MBW235, MBW415)
- Metallized Tyvek™ air cargo cover for pharmaceuticals with bottom (Tyvek™ WS)

**Exposure Time**
Test period from November 11 at 13:00 to November 13 at 11:00.

**Weather Conditions**
Full sun all day on November 12 with daytime temperatures in the low to mid 80°F range (26°C to 29°C).

**Data Capture**
Data logging conducted at known hot spot locations:
- Air temperature at top southeast corner, under cover
- Air temperature at south face center load, under cover
- Air temperature at top southwest corner, inside of box
Observations

Graphs of temperature data demonstrate that Tyvek™ air cargo covers for pharmaceuticals offer better protection from elevated ambient temperature and upward thermal excursions caused by solar energy.

Conclusion

When exposed to high solar radiation and ambient temperature, Tyvek™ air cargo covers for pharmaceuticals mitigate upward temperature excursions, which facilitate cooler load temperatures.

For more information, call us at 1-800-44-TYVEK or visit www.aircargocovers.dupont.com