

Abstract:

A 1:10 scaled container with 18-scaled pallets filled up with plastic spheres is used for studying heat transfer using unforced and forced airstreams. Natural convection is observed as the main heat transfer force for unforced air flows while the level of influence of neighbour pallets can be assessed for forced air flows. Relative humidity gradients have been determined inside pallets due to the loss of water from the plastic spheres. Water loss of simulated products is also quantified in a devoted experiment.