

Title (en)
HYDRATION AND FREEZING PLANT FOR FLEXIBLE REFRIGERANT MEDIA

Title (de)
WÄSSERUNGS- UND GEFRIERANLAGE FÜR BIEGSAME KÄLTETRÄGER

Title (fr)
INSTALLATION D'HYDRATATION ET DE CONGELATION POUR SUPPORTS DE REFRIGERANT SOUPLES

Publication
EP 1009960 A1 20000621 (EN)

Application
EP 98934421 A 19980710

Priority
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• US 89340597 A 19970711
• US 7542998 A 19980508

Abstract (en)
[origin: WO9902931A1] Apparatus for preparing packaging materials for use in shipment of heat sensitive materials, utilizes a hydration module (11), a freezing module (40), and a delivery module (45). Rolls of superabsorbent polymer-based refrigerant media (117) in the form of a continuous web of a selected length and width are maintained in dry storage. These may be cut to size along the web material which separates cells containing the superabsorbent polymer. The web or pad is advanced into the hydration module (11) which comprises a dip tank (17) or spray system (26) to provide an adequate supply of hydrating fluid to the superabsorbent polymer. The hydrated web is then conveyed through a freezing chamber (40) having a temperature of -10 DEG Fahrenheit, or lower, where the fluid absorbed within the cells freezes. The small footprint of the modular system means that necessary handling, including cutting into a suitable size and shape, may be accomplished in the consumer's shipping area for placement around perishable materials in shipping containers.

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