

CLAIMS:

1. A cold chain system phase change material package, the package comprising a container and a phase change material;
wherein the container includes a PCM absorbent body fabricated from a fibre-based cellulose material; and, wherein the phase change material is principally water.
2. A cold chain system package according to claim 1, wherein the PCM absorbent body is retained within a fibre based sheet material container, the container being formed from and sealed into a tube or tube-like shape, the tube or tube-like shape having an axis, is sealed across the axis to define a closed container.
3. A cold chain system PCM package according to claim 2 wherein the fibre based sheet material is folded to define a rectangular prism.
4. A cold chain system PCM package according to claim 2 or 3, wherein the fibre based sheet material comprises wood / cellulose fibre.
5. A cold chain system PCM package according to claim 1, wherein the fibre based material is employed as a loose fill fibre.
6. A cold chain system PCM package according to any one of claims 2 – 5, wherein the fibre based sheet material is provided with a plastics waterproof layer.
7. A cold chain system PCM package according to any one of claim 6, wherein the plastics waterproof layer is applied as a hot-melt product.
8. A cold chain system PCM package according to any one of claims 2 – 7, wherein the fibre based sheet material is provided with a mineral layer.
9. A cold chain system PCM package according to any one of claim 8, wherein the fibre based sheet material comprises a pliable mineral composite including a thermo-formable bonding agent sufficient to enable a storage article containing the mineral layer to be formed into a selected shape via a thermo-forming process and/or pressure/vacuum forming process.

10. A cold chain system PCM package according to any one of claims 1 – 9 further comprising a cellulose pulp insert operable to retain fluid.
11. A cold chain system PCM package according to any one of claims 1 – 9 further comprising a cellulose sponge insert operable to retain fluid.
12. A cold chain system PCM package according to any one of claims 10 and 11 wherein the insert is compressed prior to use.
13. A cold chain system PCM package according to any one of claims 10 - 12 wherein the insert is 40 - 95% saturated with water.
14. A cold chain system PCM package according to claim 13 wherein the insert is 45 - 80% saturated with water.
15. 15. A cold chain system PCM package according to any one of claims 10 - 13 wherein the insert is pre-formed into a biscuit / waffle shape.
16. A cold chain system PCM package according to any one of claims 10 - 15 further comprising a biocide.