**Memorandum**

**Dated:** February 22, 2016

**Reference:** Evaluation of various evaporative cooling materials

Over the last year, several manufacturers have come out with "new" evaporative cooling fabrics in an attempt to compete with TechNiche evaporative cooling products powered by our HyperKewl fabric. Many of these "new" fabrics are simply wood pulp based non-wovens or diaper fill type materials with little or no water absorbent and retention capacity.

In order to better evaluate the potential of these competitor's products, we conducted a set of simple tests that considered fabric water absorbing capacity with the conclusion being that a fabric that is better able to absorb and hold water will provide greater cooling capacity, as it has more water to evaporate. The results, as outlined below, were very clear. These new evaporative cooling fabrics do not even come close to the water absorbing and retention capability of our first generation HyperKewl fabric.

| | **Sample A** | **Sample B** | **HyperKewl Fabric** |
|---|---|---|---|
| GSM | 128.8 | 150 | 130 |
| Absorbency (g/g) 0.9% Saline | 10.20 | 13.15 | 24 |
| Absorbency (g/m2) 0.9% Saline | 1314 | 1973 | 3100 |

Sample A, we believe, came out of Europe and Sample B came out of China. Both were presented as evaporative cooling fabrics that could be used as a liner in a cooling garment. As noted in our chart above, HyperKewl has nearly twice as much absorbing capacity as the next closest competitive product, while weighing less. Both Sample A and sample B appear to be an attempt to duplicate HyperKewl using lower quality ingredients and a lower quality manufacturing process. While the garment itself can appear to be the same as a TechNiche garment, the cooling technology within the garment is the key to the successful use of the garment and this can vary considerably.

When trying to determine which is the right cooling garment for you, it is best to conduct a simple test. Weigh the garment when dry, then soak the garment for 2 mins, gently squeeze out some water and weigh again. See which garment is holding more water, feels cool and dry on the inside and then make your decision.

Please call or email me if you have any questions.

Regards,

Ioannis Anastasakis
TechNiche International
ioannis@techniche-intl.com
Phone: 760-473-4338

***Technologies Offered by TechNiche International***

POWERED BY HYPERKEWL | POWERED BY COOLPAX | POWERED BY KEWLTOWEL | POWERED BY DRYKEWL | POWERED BY KEWLFLOW | POWERED BY IONGEAR | POWERED BY HEATPAX