

# **Temperature Validation of Blood Transport Bags**

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### **Introduction**

The blood transport bags are intended for intra-hospital or inter hospital transport of whole blood. The blood stored inside the bags is kept cool by the use of a gel-pack pre-cooled to 4°C, placed in physical contact inside the insulated bag.

This validation was carried out to measure the temperature rise Vs. time of a simulated load of two transfer packs containing 250ml of water correctly packed inside the transport bag with 4 gel packs.

### **Methodology**

The gel packs were cooled together with the test loads to 4°C inside a conventional blood bank refrigerator. The probes were secured between the blood bag and top cool pack. The thermocouples were fitted and connected to datalogging equipment (UKAS Calibrated). The test loads and gel packs were placed inside the bag and zipped closed. The bags were then left undisturbed until the temperature reached 10°C (the limit of temperature used for transport of blood within the UK).

The temperature rise is shown graphically below, but it should be noted that the time taken to reach 10°C was greater than 4 hours.

### **Temperature Graph**

