

## Update on testing capabilities for N Sea Oil etc' composites.

In addition to DMTA\* testing for comparing the relative stiffness, damping, degree of cure and Tg's (glass transitions) of composite materials, we offer one of the widest temperature ranges of **thermal conductivity** testing available anywhere in Europe. From -10°C up to 250°C mean T's. Recently added to this capability is the **specific heat** software so that Cp can be measured on a 30 to 200grammes sample compared to the often too small few milli-grammes that the DSC\*\* would use to measure this. For composites - by definition a mixture of at least 2 or 3 different materials – such as the fibre(s), coating and resin(s) – this is important and more representative.

From February 2016 onwards we will also be offering a pukka TMA\*\*\* for thermal expansion measurements, with a lot more accuracy than using the DMTA in tensile mode which has often been done in the past. No more apparent negative Te's for GF composites!

Normally we can offer a 2-3 day turnaround of samples in Ashwell.

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Thermal Analysis and Conductivity testing with DMA

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\*DMTA or DMA = Dynamic Mechanical (Thermal) Analysis

\*\*DSC = Differential Scanning Calorimetry

\*\*\*TMA = Thermal Mechanical Analyser