**Introduction to Composites**

**Course Overview**

This course will provide trainees with an in depth knowledge of composite theory, including reinforcements, resins, core structures and ancillary materials. Delegates will also look at composite design, typical defects and non destructive evaluation (NDE). Delegates will gain practical experience in RTM and Prepreg Layup. These topics are looked at in the context of their typical applications and the manufacturing processes used.

**Delivery Style**

Classroom and workshop based learning

**Who should attend?**

The course is aimed at employees who are new to the composites manufacturing industry or currently in entry level roles within the industry, as well as other industry personnel who are looking for a broader composites understanding.

**Objectives & Aims**

Delegates will gain an understanding of the properties of composite material components, the combined properties of resins and reinforcements, NDE and a practical understanding of prepreg lay-up and RTM .

**Course Duration**

2 day

**Course Content:**

* Awareness of composites material types, properties & processes.
* Applications for composites materials and range of materials available.
* Understanding of generic Health and Safety precautions when working with composites materials.
* Environmental conditions required for the manufacture of composites materials.
* Terminology used in the composites Industry.
* Basic principles of polymer resin chemistry.
* Reinforcement properties.
* Fabrics and resins – types and applications.
* Core types and application.
* Release agents and sealers.
* Composite design overview
* Non destructive evaluation.
* Sources of damage and contamination.
* Typical component defects and why they occur.
* Resin transfer moulding (practical-based)
* Prepreg layup (practical-based)