

**METYX Composites®**

# **Second Biennial Composites Summit**

June 1-6, 2009 • Istanbul, Turkey



**METYX®**  
c o m p o s i t e s

**STRENGTH. SUPPORT. SOLUTIONS.**

# METYX Composites Second Biennial Composites Summit

## About METYX Composites

METYX Composites is a rapidly growing division of Telateks A.S.<sup>®</sup>, which has been producing high quality textiles for almost 60 years. As an extension of the high performance reinforcements the company manufactures and the extensive consulting services it provides, METYX Composites is also committed to disseminating composites know-how in the form of formal and practical training both in Turkey and abroad.

## About the Composites Summit

METYX Composites Biennial Composites Summit was born out of the belief that formal training and hands-on, real world experience is what makes it possible to turn theory and ideas into successful, inventive end products. Today the Composites Summit is the most comprehensive event for high-performance composites in Turkey and amasses industry leaders from across the globe.



*METYX Second Biennial Composites Summit Venue*

This year's Composites Summit has been expanded to include a three-day composites conference followed by a three-day RTM school. Both parts were designed to provide the maximum amount of targeted content, including theory and practice.

The presenters are world renowned companies and institutions, including **3B<sup>®</sup>, AKSA<sup>®</sup>, Alcan Airex, Amorim<sup>®</sup>, Axel Plastics<sup>®</sup>, Cam Elyaf<sup>®</sup>, Composite Integration<sup>®</sup>, CTP-Sander<sup>®</sup>, Duratec<sup>®</sup>, Gaugler & Lutz<sup>®</sup>, High-Modulus<sup>®</sup>, Huntsman<sup>®</sup>, Kompotek<sup>®</sup>, Kreysler and Associates, Inc.<sup>®</sup>, Lightweight Structures B.V.<sup>®</sup>, METYX Composites, Mulasan<sup>®</sup>, Nord Composites<sup>®</sup>, ONUK-BG Savunma Sistemleri<sup>®</sup>, Polyworx<sup>®</sup>, Richmond Aerovac<sup>®</sup>, RMK Marine<sup>®</sup>, Roctool<sup>®</sup>, Scott Bader<sup>®</sup>, and Turkish Carbon Society/Istanbul Technical University.**

These industry leaders will demonstrate the latest composites techniques and discuss how advancements in the rapidly evolving composites industry can benefit you. It's a simple, fast way to get you up and running and on your way to a competitive advantage.

Please review the following pages for a full event schedule and presentation abstracts.



*2.4 Meter Catamaran Infusion*

## Composites Conference • June 1-3, 2009

Learn about the latest developments in production techniques for the composites industry. Diverse experts from all around the world present case studies and best practices.

### Event Highlights:

- Vacuum infusion and bagging materials, technology and consultancy
- Carbon fiber production, carbon technology, and end-uses
- Advancements in sandwich materials
- Mold release and process aid additives
- Specialty resins and adhesives
- Rapid RTM, RTM technology, tooling, and equipment
- Core materials and kitting
- Structural engineering
- Composites in architecture and infrastructure
- Software aided composite production
- Benefits of ERP systems in composite workshops



*METYX Composites RTM Training - 2008*

## RTM School • June 4-6, 2009

Get the latest in RTM technology to enable a quick start for new-comers and advanced techniques for those familiar with the process.

### Event Highlights:

- Theoretical training on L-RTM technologies
- Mold construction and the benefits of closed molding
- Case studies detailing industrial applications of the technology
- Pattern design and preparation
- VRTM and RTM mold building
- Mold building materials (resins, gelcoats, core materials, etc.)

# Composites Conference • June 1-3, 2009

## Monday, June 1, 2009

### 8:30 - 8:35 AM

Opening Speech by METYX Composites

### 8:35 - 9:20 AM



CTP-Sander  
Turkish Composites Association (Turkey)  
[www.ctpsander.org.tr](http://www.ctpsander.org.tr)

Ahmet Ozkaymak, Secretary General

#### **The Composites Marketplace**

This presentation will take a general look at the global and Turkish composites markets. There will also be an overview of CTP-Sander activities, mission, and future goals.

### 9:20 - 10:00 AM



Scott Bader  
Specialty Resins and Adhesives (UK and UAE)  
[www.scottbader.com](http://www.scottbader.com)

Ian Lancey, Product Manager

#### **Crestomer Structural Adhesives and High Performance Bonding Pastes**

Crestomer Structural Adhesives and High Performance Bonding Pastes are used in the most demanding applications due to their industry-leading product benefits derived from the unique urethane acrylate technology. This presentation will show the benefits and cost saving potential of using Crestomer Structural Adhesives and High Performance Bonding Pastes in a range of GRP based applications.

### 10:00 - 10:45 AM



Amorim  
Core Cork Producer (Portugal)  
[www.corkcomposites.amorim.com](http://www.corkcomposites.amorim.com)

António Coelho, Quality and Product Development Director

#### **Bringing Nature to the Composites Industry: Exploring the Use of CORECORK**

CORECORK, an Amorim Cork Composites brand, is a core material used in sandwich construction. The CORECORK product range presents solutions designed for the most demanding composites applications, namely in the energy and marine industries, as well as in the construction and sports and leisure sectors. The unique advantage of using a natural carbon sink raw material is that it is sustainable and recyclable. Moreover, structures built with CORECORK are strong, light, and highly durable. Additionally, in response to strict fire and smoke standards required by the transportation industry, a new Amorim material that meets M1 F1 classification (NF F 16-101) and does not contain any hazardous substances will be discussed. Finally, this presentation will also cover the next generation of CORECORK materials that are 100% green and sustainable. They can be used to achieve final components that are both inventive and environmentally friendly.

### 10:45 - 11:00 AM

Coffee Break

### 11:00 - 11:45 AM



Axel Plastics  
Mold Release and Process Aid Additives (USA)  
[www.axelplastics.com](http://www.axelplastics.com)

Nancy Teufel, Product Manager

#### **Mold Release – Great Results Every Time**

The beginning of almost every composites manufacturing process begins with simply “waxing the mold.” While seemingly the easiest part of the process, mold release can be both the source of headaches or joy. This presentation will focus on avoiding or handling some of the problems that commonly arise in preparing and maintaining molds. It will also describe the different types of products that are currently available for cleaning, sealing, and releasing various types of composites in different manufacturing processes. Topics will include working with plugs; new molds and repairs; sealing and cleaning; pre-release; fish eye and wetting problems; different mold release systems; introducing new resin or tooling systems; using tape or clay with semi-permanent release; handling and application techniques; selecting the best products; and maintaining molds in process.

### 11:45 - 12:30 PM



Cam Elyaf  
Glass Fiber and Resin Producer (Turkey)  
[www.camelyaf.com.tr](http://www.camelyaf.com.tr)

Dr. Vedat Sediroglu, R&D Manager

#### **New Developments in Materials for the Composites Industry**

This presentation will explore developments in unsaturated polyester resins, single end rovings, and CSM materials that meet the demanding requirements of the composites industry.

### 12:30 - 1:30 PM

Lunch Break

### 1:30 - 2:15 PM



ONUK-BG Savunma Sistemleri  
Engineering and Manufacturing Services for the Defense Industry (Turkey)  
[www.onuk-bg.com](http://www.onuk-bg.com)

Baris A. Gumusluoglu, Director, Design and Engineering

#### **FRP Composites in Sonar Dome Applications**

This presentation will discuss the usage and advantages of FRP composite structures in sonar domes built for military war ships.

2:15 - 3:00 PM



3B  
CFM Producer (Belgium)  
www.3b-fibreglass.com

Philippe Nellissen, Technical Product Manager in CFM

#### **Advantex™ CFM: Product Offerings and Characteristics**

This presentation explores the characteristics and benefits of 3B's Advantex Continuous Filament Mat, a benchmark product for pultrusion and for closed-mold applications in the wind energy, marine, and automotive industries. Advantex is also recognized by the fiberglass industry for being a clean technology as it has been formulated to be a boron-free E-glass. In addition to its more beneficial ecological profile, Advantex delivers significantly improved corrosion resistance properties over standard E-glass. In accordance with ASTM D578 and ISO 2078, Advantex is both an E-CR glass and an E-glass.

3:00 - 3:15 PM

Coffee Break

3:15 - 4:00 PM



RocTool  
Molding Technology (France)  
www.roctool.com

José Feigenblum, R&D Manager

#### **Rapid RTM and Other Production Processes**

RocTool specializes in inductive processes adapted for fast composite transformation and has developed its core technology, the Cage System®, for several thermoset applications including RTM, SMC, LFI, prepregs (shell, pipe, etc.). This presentation will describe different case studies, key technical points, quantified advantages, and expected outcomes.

4:00 - 4:45 PM



AKSA  
Carbon Fiber Producer (Turkey)  
www.aksa.com

Tamer Bozaci, Carbon Fiber Production & Technology Manager

#### **AKSA's New Field: Carbon Fiber**

The world biggest acrylic fiber producer, Akxa Akrilik Kimya Sanayi A.Ş. (ASKA) will begin production of carbon fiber this year under the trade name of AKSACA. AKSA has an acrylic fiber capacity of 308,000 tons per year, which is approximately 12% of the global market. AKSA's core business is polyacrylonitrile based acrylic fiber, the main raw material in carbon fiber. Looking to develop complementary products, AKSA launched its carbon fiber project in 2006 with a budget of USD \$85,000,000 and partial support on the research and development side from Tubitak-Teydeb (The Scientific and Technological Research Council of Turkey). A full scale carbon fiber production plant with capacity of 1,500 tons per year is under construction and will be completed in the second half of 2009. The initial target markets for the carbon fiber will be industrial applications such as high pressure storage vessels, wind turbine blades, and transportation (marine craft, trains, and cars).

Tuesday, June 2, 2009

8:30 - 8:35 AM

Introduction by METYX Composites

8:35 - 9:15 AM



Duratec/Hawkeye Industries  
Plug and Mold Repair and Surfacing Materials (USA)  
www.duratec1.com

John Rea, President

#### **Exploring the Benefits of the Duratec and Aqua-Buff Product Ranges**

This presentation will describe Duratec and Aqua-Buff products for applications that include plug sealing; fairing; priming and topcoating; mold resurfacing and repair; in-mold priming for post-painted parts; surface compounding and polishing; and StyroSafe Laminating Resin that is compatible with EPS foam.

9:15 - 10:00 AM



High-Modulus  
Structural Engineering - Marine (UK)  
www.high-modulus.com

Alex Shimell, General Manager, Europe

#### **Creating a Successful Structural Design: What you Need to Know**

High-Modulus will discuss a fundamental structural-design problem that is common among composite manufacturers: what materials and which build method make the most sense for a given application? A composites manufacturer's knowledge of the various material options, familiarity with the different processes, and an awareness of the properties and the costs combined with an understanding of the performance/production objectives of the component all should add up to a successful structural design. However, it is usually a finely tuned balancing act between all of these factors that is needed to achieve optimal success. High-Modulus will talk through the options and explain how to assess, at an early stage, what is likely to be right for your project.

10:00 - 10:45 AM



Huntsman  
Epoxy Resins and Adhesives (Switzerland)  
www.huntsman.com

Thierry Perchet, Marketing Manager

#### **The Latest Developments in Epoxy Systems**

Huntsman Advanced Materials is a leading global supplier of high performance synthetic and formulated polymer systems that outperform the properties, functionality, and durability of traditional materials. The company is currently the largest formulator of epoxy resins for the composites industry worldwide. This presentation will describe the latest developments in epoxy systems for the automotive, wind, and marine sectors, including case studies and best practices from various industries.

## 10:45 - 11:00 AM

Coffee Break

## 11:00 AM - 11:40 PM



Nord Composites  
Tooling Materials (France)  
www.nord-composites.com

Gerard Lavens, President

### **Developments in Zero Shrink Tooling Systems: Case Studies and Success Stories**

This presentation will focus on zero shrink tooling systems and give examples of best practices. It will also discuss new specialty materials developed by Nord Composites.

## 11:40 AM - 12:30 PM



Richmond Aerovac  
Vacuum Infusion, Bagging Materials, and Consultancy (UK)  
www.aerovac.com

Jonathan Oldroyd, Export Manager

### **The Latest Materials and Techniques in Vacuum Infusion**

This presentation will provide a general view on vacuum infused large structures. It will also focus on the latest developments in materials and techniques to better control the infusion process. Success stories and case studies will be used as examples.

## 12:30 - 1:30 PM

Lunch Break

## 1:30 - 2:15 PM



Lightweight Structures B.V.  
Consulting on Product Development and Engineering (Netherlands)  
www.lightweight-structures.com

Aldert Verheus, CEO

### **Composite Pedestrian Bridge**

Glass fiber reinforced materials are currently already accepted in many countries as a good alternative to concrete, steel, or wood for decks of bridges (especially pedestrian bridges), but can composites do more for the civil market? This presentation illustrates how a 44 meter vacuum infused composite pedestrian bridge structure was built in the Netherlands. The design and manufacturing process of the bridge is explained. Based on this project, the potential of the vacuum infusion technology is discussed and compared to conventional materials and pultrusion, which is an alternative technology for the realization of composite structures.

## 2:15 - 3:00 PM



METYX Composites  
Composites Reinforcements, Distribution, and Consulting (Turkey)  
www.metyx.com

Ugur Ustunel, VP, New Business Development  
Tunc Ustunel, Director of Sales and Marketing

### **Total Solutions in Composites**

This presentation will provide a company overview and then focus heavily on new products, services, and success stories that have helped METYX customers achieve a leading edge in their industries. Many elite brands prefer METYX high performance multiaxial and RTM reinforcements because they result in end products that are stronger, lighter, and more competitive. New METYX products like METYCORE MAX™, a reinforcement engineered for maximum resin flow and speed in RTM and L-RTM applications, offer tremendous additional benefits to customers including reduced fill time, decreased fill cost, reduced labor, increased output, high drapeability, and enhanced quality and consistency. Customers with particularly demanding composites challenges find the total solutions they need by combining METYX reinforcements and superior distribution products where needed, with METYX consulting services in the areas of Vacuum Infusion Technology, Structural Engineering Support, Mold Release Technology, and RTM Technology. Success stories across various industries from marine and automotive to construction and pipe will be shown to highlight inventive technological solutions and beneficial results.

## 3:00 - 3:15 PM

Coffee Break

## 3:15 - 4:00 PM

# MULASAN



Mulasan  
Composites Consulting (Turkey)  
www.mulasan.com

Karl Mula, Managing Director

### **State of the Art Tool Production and Benefits of Closed Molding and Infusion**

This presentation will take a general look at tool making with a five axis CNC machine. Advantages of closed molding and vacuum infusion will also be discussed. A third focus will be on case studies in the marine and automotive sectors where RTM and infusion methods are successfully applied to obtain high output and superior quality.

## 4:00 - 4:45 PM



TKD & ITU  
Turkish Carbon Association & Istanbul Technical University (Turkey)  
Tel: 0212 2853349 • Fax: 0212 2852925 • Email: ferhat@itu.edu.tr

Prof. Dr. M. Ferhat Yardim, Istanbul Technical University, Chemical Engineering Dept.

### **Focus on Carbon Materials: Properties and Uses**

The uses of carbon and its compounds are extremely varied ranging from activated carbons for the purification of drinking water and products for the chemical, pharmaceutical, and food industries to carbon black used in printing ink, rubber products, and plastic compounds. Chemical vapor disposition methods produce diamond films for applications in thermal management, cutting tools, electronic devices, and optical windows. Pitch, the precursor of many carbon materials, has yet other applications including carbon anodes, graphite electrodes, nuclear graphite, and carbon fibers. Carbon fiber composites have become the dominant advanced composite materials for aerospace, the automotive industry, sporting goods, and other applications due to their high strength, high modulus, and low density. This presentation will provide information about the structure and properties of all the carbon materials cited above and will describe how they are used in society. A brief overview of the Turkish Carbon Society will be also given at the end.

## Wednesday, June 3, 2009

### 8:30 - 8:35 AM

Introduction by METYX Composites

### 8:35 - 9:20 AM

#### GAUGLER & LUTZ



Gaugler & Lutz  
Core Material Conversion and Kitting (Germany)  
[www.gaugler-lutz.de](http://www.gaugler-lutz.de)

Josef Vetter, Sales Manager, Wind Energy

#### Core Materials and Foam Converting

This presentation will provide an overview of Gaugler & Lutz products and services. Among the competencies discussed will be core material kitting and foam converting of different rigid foams used as core materials in a wide range of applications including windmill blades, boat constructions, railway technologies, and more. Case studies will be used to exemplify the applications and to emphasize the broad knowledge base and expertise that comes from 25 years working with core materials.

### 9:20 - 10:10 AM



Polyworx  
RTM Software and Consulting (Netherlands)  
[www.polyworx.com](http://www.polyworx.com)

Arjen Koorevaar, Managing Director

#### Tomorrow's Infusion Technology: Are you Sure you are in Control?

Infusion has become a mature technology. As such, the level of skill has reached the point where risks are manageable for the applications that yield the most profit: large and complex structures. Flow analysis software in combination with practical knowledge makes it possible to design infusion strategies and optimize laminates to create sufficient margins in the process. Most importantly, the complexity of the infusion and dependency on labor can be reduced to a minimum. Polyworx is dedicated to projects that push the boundaries of today's technology. Some results will be presented, including a robust infusion system for molds as well as a clever method to build a prototype hull and mold together in only three infusion steps.

### 10:10 - 11:00



Kreysler & Associates, Inc.  
FRP Fabricator - Architectural applications (USA)  
[www.kreysler.com](http://www.kreysler.com)

William Kreysler, Managing Director

#### Composites - Opening the Door to the Future of Architecture

William (Bill) Kreysler will discuss building products his company has made using composites and high-tech fabrication tools and techniques. Examples will include a digitally fabricated, six-piece, free form, all composite home near San Francisco, California and a state of the art concert hall currently in design development for Stanford University. Kreysler & Associates uses composites along with digital fabrication tools such as large scale CNC milling, finite element analysis engineering,

and laser scanning to help architects and builders take full advantage of new design tools such as 3-D modeling. Mr. Kreysler will share ideas on how composites can work side by side with traditional methods of construction to realize forms impossible to fabricate with traditional tools alone. As architects and builders explore new forms, composite manufacturers will discover they have unprecedented opportunities in this emerging market.

### 11:00 - 11:15 AM

Coffee break

### 11:15 AM - 12:00 PM



RMK Marine  
High Performance Sailboat Manufacturer (Turkey)  
[www.rmkmarine.com.tr](http://www.rmkmarine.com.tr)

T. Emek Gokkaya, Composite Production Manager

#### Oyster 100 and 125 Superyacht Project

This presentation will briefly talk about the RMK Marine shipyard, one of the largest in the boat building district of Tuzla-Istanbul. The main focus of the discussion, however, will be Oyster 100 and 125, one of the most significant and elite superyacht projects in Europe. Specifically, this presentation will cover the latest techniques and materials utilized for plug and tooling production; details on the highly demanding vacuum infusion process (55 layers infused in one shot); use of flow simulation software; infrastructure built for this signature project; and use of a custom built post cure oven to assure a 100% cure on every boat leaving the yard.

### 12:00 - 12:45 PM



Alcan Airex  
Core Materials (Switzerland)  
[www.alcanairex.com](http://www.alcanairex.com)

Björn Hjelmland, Area Sales Manager  
Lars Massüger, Technical Services Engineer

#### The New AIREX T92 PET-foam and Environmentalism in Core Materials

After a short overview of the Alcan Airex product portfolio and its primary applications, the main focus of this presentation will turn to the new AIREX T92 PET-foam. A comparison will be made of its performance and positioning to other core materials such as AIREX C70 PVC. Other aspects like the production process, unique features of this core material, and case studies will be discussed. In addition, T92 will be positioned within the context of Alcan's famous hybrid core concept to highlight the benefits. The second focus will be on learning how to make more efficient use of core materials with respect to our environment. This topic is already a central issue in composite manufacturing/application and will only further grow in importance. We believe, the earlier we tackle it, the better it will be for everyone.

### 12:45 - 1:45 PM

Lunch Break

**1:45 - 2:45 PM**



Scott Bader  
Specialty Resins and Adhesives (UK and UAE)

www.scottbader.com

Trevor Osborne, Technical Service and Development Manager

**High Performance Products**

Scott Bader has continued to develop a range of new high performance products. New Crystic gelcoats, barrier coats and Urethane Acrylate resins will be discussed during the presentation. These will include gelcoats for use with epoxy systems and a new range of ISO/NPG gelcoats with superior weathering. The barrier coat offers improved aesthetics over conventional systems. Crestapol urethane acrylate resins offer improved toughness; excellent fire and smoke performance; and rapid curing for both closed mold and pultrusion applications.

**2:45 - 3:30 PM**



KompoTek  
Composites Consulting - Wind Energy & Marine (Turkey)  
www.kompotek.com.tr

Bugra Akbiyik, General Manager

**Specialized Consulting Services for the Composites Industry**

This presentation will give an overview of KompoTek and the markets we serve, namely the wind energy, marine and automotive industries. KompoTek provides consulting services on composite materials selection, evaluation, and testing; component production, prototyping, and serial production; manufacturing technologies such as VIP and L-RTM; mold production and design; cost reduction; factory lay-out; product development; and quality control/assurance for composites.

**3:30 - 3:45 PM**

Coffee Break

**3:45 - 4:45 PM**



Composite Integration  
RTM Technology, Tooling, and Equipment (UK)  
www.composite-integration.co.uk

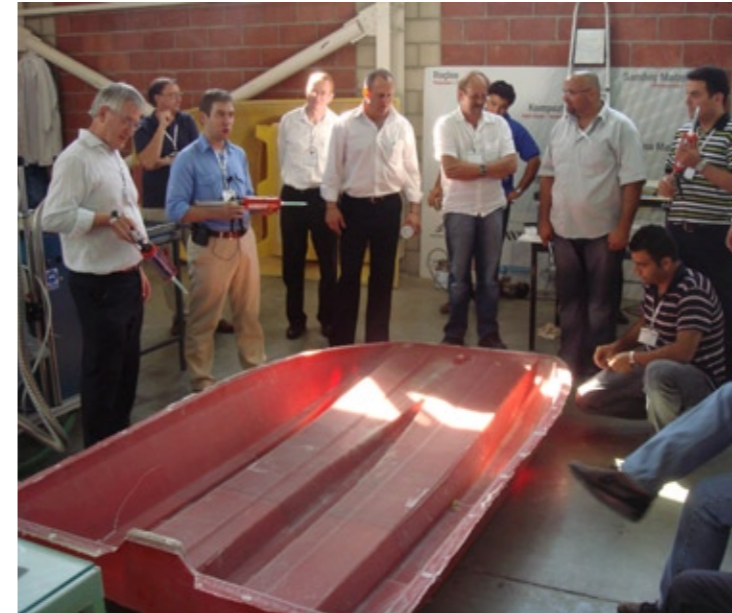
Richard Bland and Stephen Williams, Co-Directors

**RTM and the Crossover from RTM to Resin Infusion**

This presentation will take a closer look at tooling strategies, the benefits of RTM and L-RTM, equipment, and success stories from marine to automotive. Composite Integration and Princess Yachts have been developing new methods of process control for resin infusion and RTM. These developments will also be addressed in this presentation, including advancements in technology and techniques for the bagging process, new specialist infusion materials, and enhancements in computer flow analysis, all of which enable manufacturers to optimize production of highly complex structures on a very large scale. Further developments in the areas of waste reduction, improved cleanliness, and enhanced process control to ensure high quality standards and repeatability will also be discussed.

**5:30 PM**

Group Dinner



Application of Crestomer Adhesives



L-RTM Injection Demo



Application of Moldguard



Axel Mold Release Application



Summit Attendees on a Boat Trip in Istanbul

## RTM School • June 4-6, 2009

The RTM School will be led by Composite Integration, a METYX Composites partner. Composite Integration Ltd provides practical technical support and consultancy in all aspects of closed mold processing.

Richard Bland and Stephen Williams, Co-directors of Composite Integration will conduct all the training.



Richard Bland and Stephen Williams

Summit Attendees Engage in Friendly Competition to Complete their Own Molds

### Vacuum RTM Mold Construction:

The training course will consist of a mixture of theoretical and practical work and is designed to give a practical basis for mold builders, an understanding of the design requirements for the composite component designer, as well as detailed knowledge of the molding process in general.

### The course covers the following areas:

- **Component design for process** - An overview of various molding projects with case studies to highlight particular aspects of the process.
- **Pattern design and preparation** - Materials for pattern construction, supporting structure, flange design, surface treatment, release agents and dimensional tolerances.
- **Mold construction** - Complete and practical breakdown of each stage of the mold building process.
- **Mold building materials** - Specification of tooling resins, gelcoats, core materials, etc. Epoxy, vinyl ester, polyester, Low-profile and hybrid tooling systems.
- **Calibration Wax** - Building an accurate molding cavity between the mold surfaces using sheet wax. Alternative calibration materials. Surface treatments. Release agents.
- **Vacuum** - The use of vacuum to maintain accuracy during the mold building stages. Vacuum equipment and its application.
- **Mold sealing systems** - The specification and application of various mold sealing systems. Alternative seal types (inflatable seals etc). Flange design to accommodate different seal types.
- **Injection / vent insert application** - Optimum insert positioning for effective fill and minimum wastage. Types of injection port and injection valves.
- **Molded inserts** - Threaded inclusions within the laminate. Conventional threaded insert carriers, magnetic insert carriers. Molding around cores. Specifying core materials - wood, foam, metal etc.
- **Injection materials** - Specification of injection resins, accelerator and catalyst systems. Injection resins designed for optimum surface finish (low-profile). Fiber types including surface veils, fiber types. The use of woven and nonwoven directional fibers.
- **Release agent** - Specification and use of release agents for different resin systems. Internal release agents.
- **Injection strategies** - Mold lay-out and design for optimum performance. Injection and vent strategies for complex mold geometry.
- **Vacuum** - The use of vacuum for injection and clamping purposes. Requirements for different vacuum levels and methods of achieving this.
- **Injection equipment** - A comprehensive overview of different types of injection equipment. The application and use of injection equipment. The importance of pressure / flow control. Trouble shooting and machine maintenance.

A full training manual and all relevant information covering any of the materials/components used will be provided.

## Thursday, June 4, 2009

### 8:30 AM - 12:30 PM

**Theoretic Presentations:** Introduction to Composite Integration and the RTM School; Description of First Mold Half Structure; Introduction to Waxing

### 12:30 - 1:30 PM

Lunch

### 1:30 - 4:30 PM

**Workshops:** Waxing Demo Molds (with facility to show waxing presentation at same time); Complete Waxing; PVA Applications; Injection Demo - Glass Mold

**Theoretic Presentation:** Review of the Day's Activities

## Friday, June 5, 2009



Ciject One Resin Injection Machine

### 8:30 AM - 12:30 PM

**Workshop:** Position Mold Inserts (using presentations); Gelcoat Application

**Theoretic Presentation:** Review of Waxing; Second Mold Half Presentation

**Workshop:** Surface Veil Laminating; Laminating Continued

### 12:30 - 1:30 PM

Lunch

### 1:30 - 4:30 PM

**Workshops:** Laminating; Injection Demo; Mastercore Flanges; Laminating Final Layers; Frame Application

**Theoretic Presentation:** Review of the Day's Activities

## Saturday, June 6, 2009

### 8:30 AM - 12:30 PM

**Workshops:** Open New Molds; Removing Wax and Cleaning; Polishing

**Theoretical Presentations:** Mold Completion

### 12:30 - 1:30 PM

Lunch

### 1:30 - 4:30 PM

**Workshops:** Injection Demo; Release Agent Application; Seal Installation, Commissioning of New Mold(s)

**Theoretic Presentations:** Inserts, Cores, and Mold Design; Final Summary; Q&A Session





## **METYX Composites - Telateks A.S.**

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