



2012

International Conference & Exhibition on Thermoplastic Composites

Conference Programme

**29 – 30 October 2012
Messe Bremen, Germany**

www.ithec.de

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innovative!

Timetable

Monday, 29 October 2012

from 7.30	Registration	
9.00–9.15	Opening	
9.15–9.30	Welcoming remarks	
9.30–10.15	Keynote Automotive	
10.15–10.40	A1	Session A: Automotive
10.40–11.05	A2	
11.05–11.35	Coffee break	
11.35–12.00	A3	
12.00–12.25	A4	
12.25–12.50	A5	
12.50–13.15	A6	
13.15–15.15	Lunch break	
15.15–15.40	B1	Session B: Offshore/ Wind Energy
15.40–16.05	B2	
16.05–16.30	B3	
16.30–17.00	Coffee break	
17.00–17.25	B4	
17.25–17.50	B5	
17.50–18.15	B6	
19.30	Conference Dinner at Bremer Ratskeller	

Tuesday, 30 October 2012

from 8.00	Registration	
8.45–9.30	Keynote Aero Structures	
9.30–9.55	C1	Session C: Aero Structures
9.55–10.20	C2	
10.20–10.45	C3	
10.45–11.15	Coffee break	
11.15–11.40	C4	
11.40–12.05	C5	
12.05–12.30	C6	
12.30–14.00	Lunch break	
14.00–14.25	D1	Session D: Manufacturing Technologies
14.25–14.50	D2	
14.50–15.15	D3	
15.15–15.45	Coffee break	
15.45–16.10	D4	
16.10–16.35	D5	
16.35–17.00	D6	
17.00–17.20	Final Summary with all Chairmen	

The organiser would like to thank all the sponsors and media partners!

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Dear ladies and gentlemen,

Composites are booming in nearly every branch, thanks to their excellent characteristics. Nevertheless, the applications for serial production are still quite limited due to costs, in a better way: economic efficiency. The automotive industry has currently taken over the role as frontrunner for CFRP developments. But a wide use in serial products requires a strict step towards competitive costs per part and drastically reduced lead times. The challenge is to match the tact of automotive production at one to two minutes to make it attractive for high volume production. Promising technologies such as high pressure RTM have already led to an impressive reduction down to 6 minutes at quite acceptable costs per part. But a real breakthrough requires more. It requires among others to extend the view from current thermoset technologies to other matrix systems.

ITHEC is the first conference in the world focusing on the wonderful opportunities advanced thermoplastic materials and processes can offer. We have managed to invite well known international experts and representatives from leading companies to Bremen to highlight the great opportunities thermoplastic composites can offer in terms of cost, performance and lead time. We expect clear impulses for all branches whether they be automotive or aircraft industries, offshore or wind turbine manufacturers.

Looking forward to meeting you at the ITHEC.

Best regards,

Axel Herrmann
Conference Chair
Universität Bremen

Hubert Borgmann
Project Manager ITHEC
MESSE BREMEN

- R. Benedictus**, Delft University of Technology, NL
- H. Bersee**, SUZLON Blade Technologies, Hengelo, NL
- H. Borgmann**, Messe Bremen, DE
- A. Deterts**, Premium AEROTEC GmbH, Bremen, DE
- A.-T. Do**, Technip - Flexi France S.A.S., Le Trait, FR
- P. Ermanni**, ETH Zurich, CH
- H. Heerink**, TPRC, NL
- A. S. Herrmann**, Universität Bremen, DE
- A. Koelewijn**, Consultant, Rijswijk, NL
- M. Kremers**, Airborne, The Hague, NL
- L. Kroll**, Technische Universität Chemnitz, DE
- R. Lenferink**, TenCate Advanced Composites BV, Nijverdal, NL
- C. Peters**, Faserinstitut Bremen e.V. (FIBRE), DE
- A. Plath**, Volkswagen AG, Wolfsburg, DE
- M. Risthaus**, Evonik Industries AG, Marl, DE
- T. Rudlaff**, Daimler AG, Sindelfingen, DE
- B. Thuis**, National Aerospace Laboratory (NLR), Amsterdam, NL
- B. Wohlmann**, TohoTenax Europe GmbH, Wuppertal, DE
- A. Wood**, Victrex Plc, Thornton Cleveleys, GB
- M. Würtele**, KraussMaffei Technologies GmbH, Munich, DE

The Conference

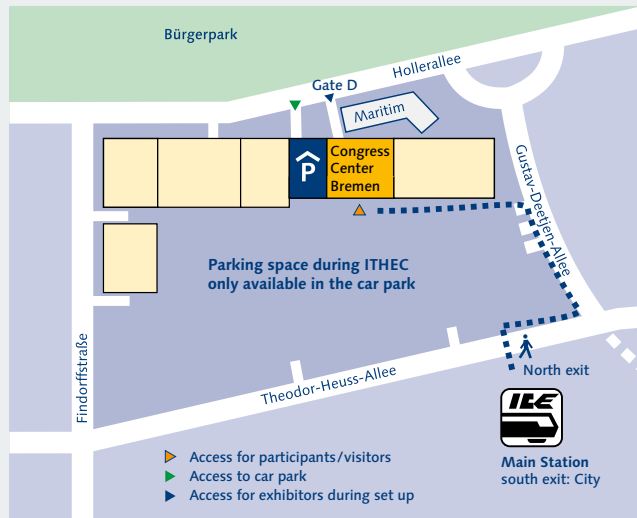
ITHEC is the first and unique expert conference focusing on structural thermoplastic lightweight constructions in aerospace, automotive, offshore/wind energy as well as the corresponding manufacturing technologies.

The invitation to attend ITHEC is directed at executives and researchers from industry (providers of raw materials for composite components, providers of manufacturing equipment, component manufacturers, end users) as well as institutes and universities in charge of these topics who are interested in an intensive exchange and the transfer of R&D results into industrial products.

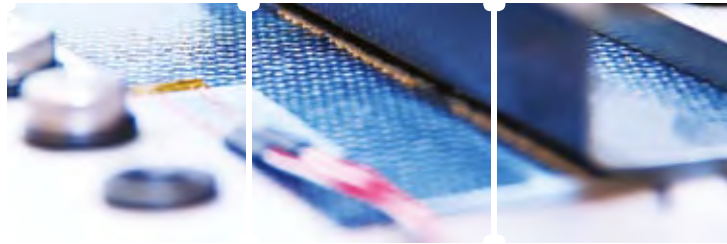
ITHEC focuses on

- Composite Structures and Processes
- Process and Structure Simulation
- Semi-Finish Products and Textile Technologies
- Manufacturing and Process Technologies (e.g. Thermoforming, Injection Moulding, Fibre Placement, Tailored Fibre Placement)
- Process/Material Quality and Testing Methods etc.

Expected 350 international participants will present and discuss new scientific results, meet leading international specialists, share their expertise and start business co-operations in the field of thermoplastic composite technologies.



developing
a world of
composites



Serving as a catalyst for innovation

The ThermoPlastic composites Research Center (TPRC) in the Netherlands, is a research- and development center that focuses exclusively on thermoplastic composites for a broad range of end use markets.

TPRC primarily executes joint development projects on new thermoplastic composite technologies and applications for its industrial members. In these projects TPRC takes into account materials, processing and design aspects. A major advantage of thermoplastic composites is their short production time. It is essential, however, to have a thorough understanding of how the material behaves during the production process. TPRC is building knowledge in this field by conducting research and making its expertise available to members in the form of guidelines, data and software tools. Next to the joint generic technology projects, TPRC also executes specific R&D for its members or third parties.

TPRC is an independent organisation and is accessible for all the parties from different value chains in the thermoplastic composite sector, like OEMs, material suppliers, engineering and design bureaus, production organisations, machine suppliers and education and research institutes.

info@tprc.nl
www.tprc.nl



The Conference

Conference Fees

Two-day ticket (early bird discount) **585€***
Registration until 15 August 2012

Two-day ticket **650€***
Registration from 16 August 2012

One-day ticket **400€***
no early bird discount available

Reduced fee for students **60€***
including Proceedings on CD ROM and refreshments, but without lunches (registration to be accompanied by student ID)

Reduced fee for one author of a paper, Steering Committee Members **400€***

Reduced fee for exhibitors **400€***
Available for one representative; two reduced tickets are available if stand size is 12 m² or more

Printed version **20€**
of the conference proceedings if ordered (plus 7% VAT)
by 14 September 2012 together with a conference registration

Conference dinner at the Bremer Ratskeller **50 €***
(29 October 2012)

*(Prices plus 19% VAT)

The conference fee includes the **conference proceedings on CD-ROM**, the entry to the exhibition, lunches and refreshments.

The official conference language is English; there will be no simultaneous translation.

Online registration is open until 15 October 2012 on www.ithec.de
From 16 October 2012 registration is only possible on-site.
Early bird discount is available until 15 August 2012.

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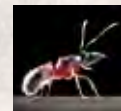
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29 October 2012

Session A: Automotive

Chairman: A. Plath,
VOLKSWAGEN AG

	Keynote Automotive A. Plath, Volkswagen AG, Wolfsburg, Germany
A1	How to Realize Lightweight Design in Mass Production M. Risthaus, Evonik Industries AG, Marl, Germany
A2	Thermoplastic Matrix Systems for Automotive Applications M. Jung, BASF SE, Ludwigshafen, Germany
A3	Technological Challenges for Realizing Ultra Lightweight Mass Production Automobile by Using CFRTP J. Takahashi, K. Uzawa, T. Matsuo, M. Yamane, The University of Tokyo, Japan
A4	Thermoplastic Composite Structures for Automotive Volume Production L.-E. Elend, C. Haverkamp, F. Venier, Audi AG, Audi Lightweight Design Centre, Neckarsulm, Germany
A5	Automotive Production Plant for Hybrid Thermoplastic Composites S. Malkus, Mercedes-Benz Plant Hamburg, Germany
A6	The Thermoplastic Carbon Composite Technology for Automotive Parts Mass-Production J. Sadanobu, Teijin Limited, Tokyo, Japan



Session B: Offshore/Wind Energy

Chairman: H.E.N. Bersee,
Suzlon SE Blade Technology

B1	Thermoplastic Composites in Energy Generation, the Present and the Future A. Wood, Victrex, Thornton Cleveleys, Lancashire, UK
B2	Thermoplastic Composite Spoolable Pipe, Setting a New Standard for the Oil & Gas Industry M. Kremers, Airborne, The Hague, The Netherlands
B3	Thermoplastic Composites: an Opportunity for Wind Energy? H.E.N. Bersee, Suzlon SE Blades Technology, Hengelo, The Netherlands
B4	Automated Fibre Placement with Thermoplastics, Opportunities for Future Large Composite Components H.G.S.J. Thuis, National Aerospace Laboratory (NLR), Marknesse, The Netherlands
B5	Effect of Fibre-Matrix Interfaces on Durability of Heavily Loaded Thermoplastic Composite Structures S. Rasool, P. Carnevale, H.E.N. Bersee, Faculty of Aerospace Engineering, Delft University of Technology, The Netherlands
B6	Recycling of CFRP Materials T. Rademacker, carboNXT GmbH, Wischhafen, Germany



30 October 2012

Session C: Aero Structures

Chairman: R. Benedictus

Delft University of Technology

	Keynote Aero Structures C. Rückert, Airbus Bremen, Germany
C1	Thermoplastic Composites in Aerospace Structures A. Rubin, Boeing Research and Technology, St. Louis, Missouri, USA
C2	Thermoplastic Carbon Fiber Materials for High-End Applications M. Schneider, B. Wohlmann, J.-P. Canart, Toho Tenax Europe GmbH, Wuppertal, Germany
C3	Joining of Thermoplastic Composites and Other Applications A. Yousefpour, National Research Council Canada, Montreal, Canada
C4	Integrally Stiffened Thermoplastic Skin Panels A. Offringa, Fokker Aerostructures B.V., Hoogeveen and Papendrecht, The Netherlands
C5	Serial Production of Thermoplastic CFRP Parts for the Airbus A350 XWB A. Deterts, Premium AEROTEC GmbH, Bremen, Germany
C6	Tempered Spring-in Compensation for Small Carbon Fibre Reinforced Thermoplastic Composites C. Peters, C. Brauner, M. Schulz, A. S. Herrmann, Faserinstitut Bremen e.V. (FIBRE), Germany



Session D: Manufacturing Technologies

Chairman: L. Kroll

Chemnitz University of Technology

D1	Thermoplastic Composite Manufacturing for Highly Stressed Lightweight Structures L. Kroll, N. Schramm, Department of Lightweight Structures and Polymer Technology (SLK), Chemnitz University of Technology, Germany
D2	Overview of Thermoplastic Composite ATL and AFP Technologies J. Mondo, TenCate Advanced Composites USA, Morgan Hill, USA
D3	Towards Design for Thermoplastic Composites Manufacturing Using Process Simulation R. Akkerman, B. Rietman, S. Haanappel, U. Sachs, ThermoPlastic composites Research Centre, Enschede, The Netherlands
D4	Fully Automated Injection Moulding Production of Textile Reinforced Parts M. Würtele, Technology Development, KraussMaffei Technologies GmbH, Munich, Germany
D5	Cost-Effective Reactive Processing of High-Temperature Resistant Polyphthalamide in High-Performance Thermoplastic Composites C. Zaniboni, P. Ermanni, Centre of Structure Technologies, ETH Zurich, Switzerland
D6	In-line Manufacturing of Load Adapted Multi-Ply-Laminates H.-J. Heinrich, CETEX Institute, Chemnitz, Germany; L. Kroll, S. Nendel, Department of Lightweight Structures and Polymer Technology (SLK), Chemnitz University of Technology, Germany

Final summary with all Chairmen



The Exhibition

The accompanying **International Exhibition on Thermo-plastic Composites** will present new lightweight concepts, materials trends and innovative manufacturing technologies in the field of thermoplastic composites.

New results in the field of

- Raw Materials
- Textile & Fibre Technology
- Semi-Finished Textiles
- Manufacturing Technology and Manufacturing Equipment
- Process and Structure Simulation
- Composites Structures
- Process and Quality Control
- Materials Testing
- Service Providers

Related to areas such as

- Aerospace
- Automobiles
- Offshore
- Wind Energy

List of Exhibitors (updated 10 July 2012)

CFK-Valley Stade e.V., Stade, DE

Daimler AG, Mercedes-Benz Plant Bremen, DE

Faserinstitut Bremen e.V., DE

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Lanxess Deutschland GmbH, Dormagen, DE

PTS Tech Holding, New Taipei City, TW

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Rental Fees

(exhibition space only, minimum rental space 6 m²)

Row stand (1 side open)	150 €/m²
Corner stand (2 sides open)	160 €/m²
Head stand (3 sides open)	190 €/m²
(All prices plus 19% VAT)	

Rental pre-fabricated stands are available. If you are interested, please contact the organiser for detailed information.

Opening hours of the exhibition

Monday 29 October 2012,	9:00 – 18:00 h
Tuesday 30 October 2012,	9:00 – 17:00 h

The exhibition will take place at the **Bremen Congress Center** (CCB) foyer close to the conference hall. About 30 exhibitors and their visitors will find an excellent environment just in front of the conference lecture hall.

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ITHEC, Booth A18

Wir geben Stoff in 2012.



Maschinenbau, Luftfahrttechnik, Fahrzeugbau, Windenergie – diese und viele andere Branchen setzen vermehrt auf den Einsatz von Composites als Werkstoffe der Zukunft. Von welchem Entwicklungspotential kann die deutsche Fertigungsindustrie beim Einsatz von Faserverbundwerkstoffen profitieren? Und welche Anforderungen müssen für eine wirtschaftliche Composite-Bearbeitung erfüllt werden?

Antworten zu diesen Fragen finden Sie ab jetzt in MM CompositesWorld, der neuen Sonderausgabe von MM MaschinenMarkt.

Kontakt:
Winfried Burkard, Telefon: +49 931 418-2686
E-Mail: winfried.burkard@vogel.de



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