INAL PROGRAMME

Glass and Solar in Sustainable Development

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GPD Contact Forum

Pre-organize meetings through the new web service opening in April

- The enhanced GPD Contact Forum is available only for registered attendees 0 and it offers an opportunity to maximize the efficiency of their stay during GPD.
- The Contact Forum will include user profiles of: 0
 - **Registered** Participants 0
 - **Speakers** 0
 - **Exhibitors** 0
- The mission of the Contact Forum is to prepare the ground for enhanced 0 networking by enabling and facilitating one-on-one meetings between participants, speakers and exhibitors. Users will be able to view the profiles and book directly, meetings in advance with other attendees they wish to meet.
- This empowers all attendees that use it actively to network effectively before, 0 during and after the event.

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GPD - an ACE for Challenging Times

The GPD has been successfully arranged for a number of years and can well be called a tradition. But it is much more than that. Over the years we have inspired the interest groups of the glass industry to perform better and more efficiently primarily by exchanging information & technologies and expanding the horizons of the industry.

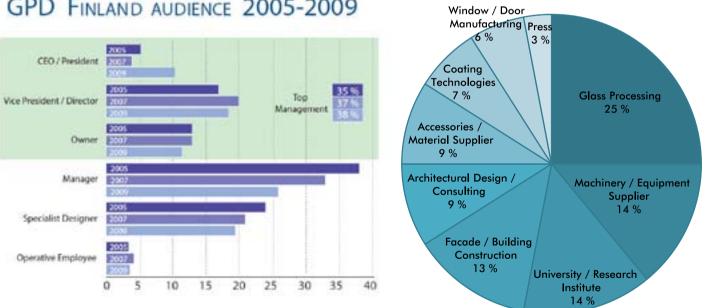
We have done this together and have seen amazing dimensions of what glass can do – in energy economy, in solar applications and many other aspects. We have also seen the importance of providing the GPD as a source of inspiration and an ace for tough times. It is important not to duck when times are tough but to look forward and invite better times by positive action.

Doing this cost-effectively is the special Ace of the GPD itself. Your trump card for challenging times.



• almost 850 participants from over 55 countries • over 300 presentations • 17 workshops • Glass Expo

GPD FINLAND AUDIENCE 2005-2009



Who should attend: glass processors and manufacturers, material and machinery suppliers, glaziers, architects, construction specialists, university representatives, window and IG-unit manufacturers, consultants, representatives from the automotive industry and research institutions.





Welcome to Tampere!

Jorma Vitkala Chairman of the Organizing Committee Glass Performance Days mob. +358 40 553 2042 | jorma.vitkala@gpd.fi GPD 2011 | conference | glass expo | 17 – 20 June | Workshops | 16 - 17 June Full programme with abstracts and registration at www.gpd.fi/finland

GPD 2011 | conference | glass expo | 17 – 20 June | Workshops | 16 - 17 June Full programme with abstracts and registration at www.gpd.fi/finland

TAMPERE - a Clean, Modern and Safe Nordic City

GPD is held in the city of Tampere, a busy Finnish lake territory city, with a population of app. 210,000. Tampere is an excellent example of a clean, modern and safe Nordic city. It was founded in 1779 on the divider between two areat lakes - Näsijärvi and Pyhäjärvi - linked together through the Tammerkoski rapids. The traditional industrial area around the Tammerkoski rapids is one of the official national scenic areas in Finland.

A City of Research and Education

Tampere is a city of research and education on both a national and an international scale. There are two major universities, a university hospital and numerous institutions of education as well as organizations operating in high-tech sectors. Tampere is the centre of the second largest urban region in Finland with an exceptional cultural life.

Tampere Tourist Office

The staff of Tampere Tourist Office is available to help you with any questions. They are pleased to recommend sights, attractions and activities in the region. Tourist Office organizes for example sightseeing tours. Bike rental is available for tours around the city. The staff will serve you in English, German, French, Swedish and Russian. Other languages are accommodated by request.

More about tourism in Tampere www.gotampere.fi

Tampere Hotels

The GPD organization committee has made block hotel reservations in all the major hotels in Tampere and will book them according to your preferences. These reservations come with discounted room prices ranging from EUR 85–145 per person per night. Hotel reservations are required to be made while delegates are registering for the conference on the registration form, since June is the peak season for tourism and all accommodation facilities will be fully reserved in Tampere by then.

Tampere Hall

The conference will take place in Tampere Hall, the largest congress and concert centre in the Nordic region. It is located within a walking distance from the city centre and all major hotels.

See more about the venue at www.tampere-talo.fi

Climate in Finland

The weather is mostly warm and pleasant in the middle of June. Daily temperatures range from 15-30°C. Evenings and nights may be cooler, but bright.

For more information on Finland, please visit www.finland.fi





HOW to Get There

The Tampere-Pirkkala International Airport operates direct flights to several locations in Europe. For example, Rvanair flies to Tampere from Frankfurt, London, Bremen, Edinburg, Milan and Oslo.

All major international airlines fly to Helsinki that offers frequent connections to Tampere by air. Bus and train connections for the two hour travel to Tampere are frequent and comfortable.

Below some samples for airfares to Finland.

London 40-300€ | Berlin 50-200€ | Munich 90-250€ | Paris 120-250€ | Milan 100-400€ | | New York 350-1400€ | Chicago 700-1200€ | Bangkok 400-1400€

Flying to Finland

Travelling in Finland

Train timetables and online & mobile tickets: Finnish Railways VR www.vr.fi/en Bus timetables and tickets www.matkahuolto.fi Visit Finland www.visitfinland.com Google maps http://maps.google.com

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Tampere-Pirkkala airport www.finavia.fi Helsinki-Vantaa airport www.helsinki-vantaa.f



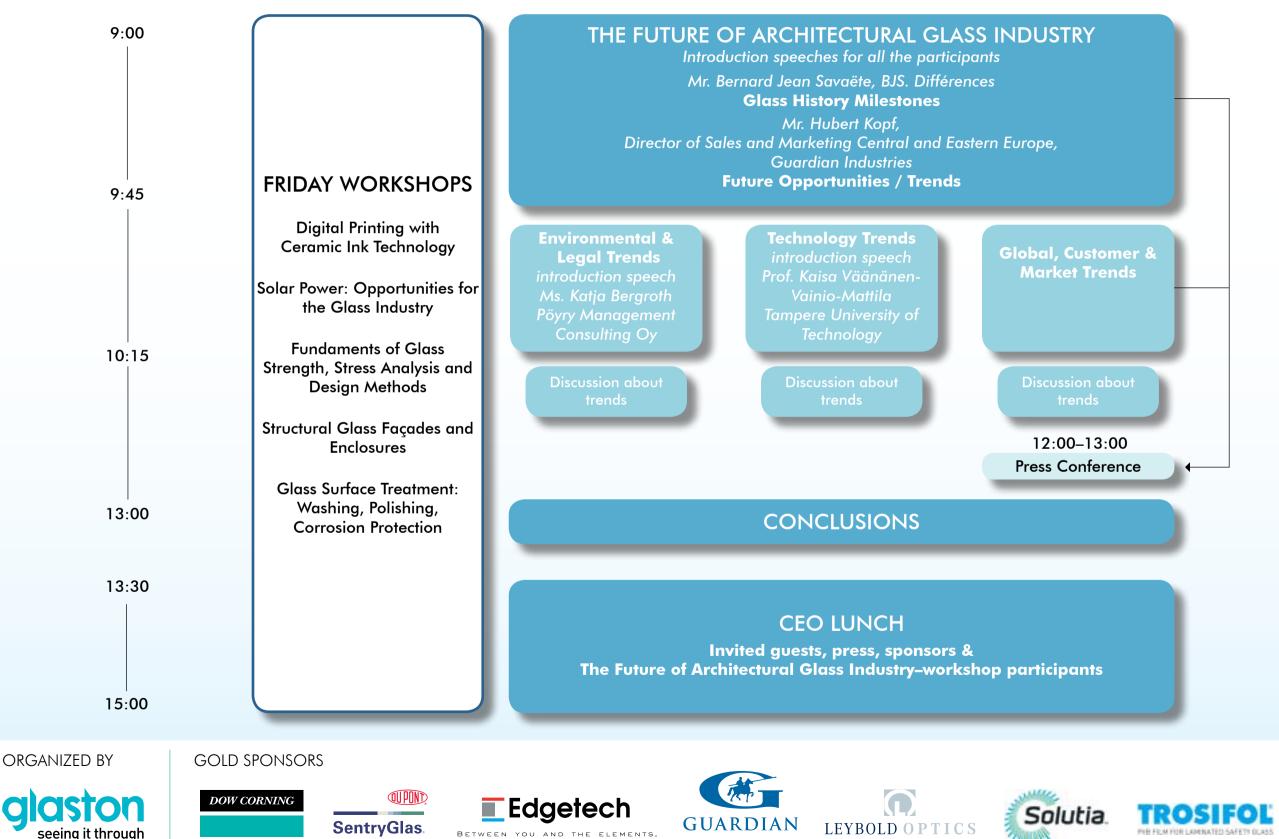
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OPFNING DAY PROGRA 17 JUNE 2011 AT TAMPERE HALL

15:30



15:30 OPENING ADDRESS

Mr. Arto Metsänen, **CEO** Glaston Corporation



OPENING ADDRESS

Mr. Jorma Vitkala, Chairman of the Organizing Committee GPD

15:45-16:10 KEYNOTE SPEAKER

GLASS IN THE BUILT ENVIRONMENT

Mr. Bruce J. Oreck. Ambassador of USA to Finland

THE OPENING CEREMONY

All the registered participants and accompanying persons



16:15-16:40 OPENING SPEAKER

SMART GRID & DESERTEC -TURNING THE VISION INTO REALITY

Mr. Ralf Christian, CEO Power Distribution Division, Siemens AG, Energy Sector

16:45–17:30 COFFEE

ARCHITECT COMPETITION

SUOMEN PANKKI PLAZA Presentation of the proposals and announcing the winner by Professor Hannu Tikka, Tampere University of Technology

PROPOSALS: ALA Architects Ltd.

Mr. Keith Boswell. Skidmore, Owings & Merrill

Mr. James Carpenter, James Carpenter Design Associates Inc. Mr. Werner Sobek, Werner Sobek Stuttgart GmbH & Co. KG

GET TOGETHER PARTY

All the registered participants and accompanying persons



19:15

22:00





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GPD 2011 | conference | glass expo | 17 – 20 June | Workshops | 16 - 17 June Full programme with abstracts and registration at www.gpd.fi/finland

> 18:45-19:15 OPENING SPEAKER

NO TIME FOR THE TIMID

Mr. Russell J. Ebeid, President Guardian Glass Group



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CONFERENCE PROGRAM Saturday, June 18, 2011

GPD 2011 | conference | glass expo | 17 – 20 June | Workshops | 16 - 17 June Full programme with abstracts and registration at www.gpd.fi/finland

Energy Performance in Buildings

Chairpersons: W. Wagner - Sika Service AG & P. Cumpelik - AGC Glass Europe

9.00 How to Be Sustainable on Glass and Façade Engineering? Dr. de Gaetano, Thornton Tomasetti

9.30 The Recast EU Energy Performance of Buildings Directive Mr. R. Wilberforce, Glass for Europe

9.50 Energy Labeling of Windows and Roof Windows, Set-up of an Understandable... Mr. Jens Kristiansen, VELUX A/S

10.10 Reflections on Glass: Attributes of Performance and Appearance... Mr. Mic Patterson, Enclos Corp.

10.30 - 11.15 COFFEE BREAK

11.15 New Generation of Point Fixed Glazing with Improved Thermal Insulation Mr. Pavel Cumpelik, AGC Glass Europe

11.35 The Influence of Isolation on the Thermal Performance of Triple... Dr. Yueping Fang, University of Ulster

11.55 Energy Aspects of Using a Wall Unit... Dr. Christina Stålhandske, Glafo

12.15 - 13.45 LUNCH

13.45 What Differences Real Warm-Edge Spacers Can Do to Insulating Glass Mr. Christoph Rubel, Edgetech Europe GmbH

14.15 The Common Use of Structural Glass in Private Houses

Mr. P. Wilson, Malishev Wilson Engineers

14.45 Nature Research of New Generation Windows from PVC Profiles in Moscow.. Mr. Nikolay Pantyukhov, NIISF RAABS

15.15 - 16.00 COFFEE BREAK

16.00 CFD Modeling of Wind-Driven Convection Heat Transfer in...

Mr. D. Bettenhausen, Enclos Corp.

16.30 Comparing Thermal Performance of In-Situ and Proposed Replacement..

Mr. A. Cinnamon, Wiss, Janney, Elstner Assoc., Inc.

16.50 A Double-skin Façade Thermal Study in the Russian Climatic Conditions Mr. Andrey Shekhovtsov, Research Institute Of

Building Physics 17.10 Erecting of Energy Efficient Multifunctional Skyscraper Using...

Dr. B. Ukhov, Reynaers Aluminium Rus

Architect Forum

Chairperson: Jens Schneider - TU Darmstadt

- 9.00 Phenomenal Light Enriching the Public Realm Mr. James Carpenter, James Carpenter Design
- Associates Inc

9.45 Strategies for Stretching the Structural Limits of Glass

Mr. Timothy Macfarlane, Dewhurst Macfarlane and Partners

10.30 - 11.15 COFFEE BREAK

11.15 Glass Skins - Recent Work and Research Mr. Werner Sobek, Werner Sobek Stuttgart

12.00 Glass Structures - Recent Developments and Future Requirements for Glass Products Prof. Jens Schneider, TU Darmstadt

12.30 - 13.45 LUNCH

13.45 Beyond Transparency: Glass in Contemporary Architecture Mr. Antti Nousjoki, ALA Architects

14.30 Interdisciplinary Collaboration in Exterior Enclosure Design Mr. Keith Boswell, SOM

15.15 - 16.00 COFFEE BREAK

6.00 Is Glass Green? Dimensions of Sustainable Transparency and the Future of Glass in the Building Skin

Mr. Mic Patterson, Enclos Corp.

16.30 Beyond Boundaries - Exploring Geometric Complexity

Mr. Johann Sischka, Waanger-Biro Stahlbau AG

Read full abstracts of all GPD Finland 2011 presentations at www.gpd.fi/finland/abstracts

Tempering / Pre-processing Sol

Chairperson: R. Quintero - Glaston Finland Oy

9.00 Agressive Environment in Tempting... Mr. G. Rancoule, Vesuvius France SA

9.30 Thermally Toughened Safety Glass: Correlation Between Flexural Strenght... Mr. Ennio Mognato, Stazione sperimentale del Vetro

10.00 On the Inhomogeneity of Residual Stresses in Tempered Glass Panels Dr. Johan Anton, GlasStress Ltd

0.30 - 11.15 COFFEE BREAK

1.15 Mechanical Glass Tempering - Present Products and Future Challenges Mr. Antti Aronen, TU Tampere

11.35 Influence of Edge Flaws on Failure Strength of Glass

Ms. M.Lindqvist, École Polytechnique Fédérale de Lausanne (EPFL)

11.55 The Analysis of Breakages of Curved Heat Treated Glass Mr. John Colvin, JCGC Limited

2.15 - 13.45 LUNCH

Product and Process Case Studies

Chairpersons: Klaus Mühlhans - Glaston & Peter Böhmer - Hegla

3.45 Improved Cracking Resistance by Thin Film ALD Coatings

Mr. Olli Jylhä, Beneq Oy

- 4.15 Space Saving Dynamic Buffer System for Remnant Sheets
- Mr. Torsten Kniepmeyer, ALBAT+WIRSAM 4.45 Optimised IG-Production Processes and
- Significant Reduction of Waste... Mr. Robert Grieshofer, C.Bergmann KG

15 - 16.00 COFFEE BREAK

16.00 Cold Deformation of Insulating Glass Dr. Peter Hof, TU Darmstadt

6.20 Precise Glass Penetration – Perfect Edge Quality

Mr. Peter Pokoern, Bohle AG

16.40 Development of a Plastic Connector for Use with Stainless Steel/ PP... Mr. Lenz, Technoform Glass Insulation GmbH

7.00 New Benchmark in Sealing Speed and Quality of IG Units with Dynamic Mixing Mr. Klaus Puschmann, Bystronic glass c/o Bystronic Lenhardt GmbH

7.20 New Very Eco-friendly Ways of Transporting Float Glass Mr. Albert Balke, SGL Engineering GmbH

Conference Dinner 19.30 - 23.00

Solar - Materials & Technology

Chairpersons: Axel Giesecke - Dow Corning & Olivier Mal - AGC Flat Glass & Luc Moeyersons - DuPont de Nemours

9.00 Additional Surplus of an Antireflective Coating (HT-coating) on Solar... Mr. Steffen Kittler, Interpane

9.30 New Transparent Conductive Materials for Solar Applications by...

Dr. Joop van Deelen, TNO Science and Industry

10.00 Bifunctional Solar Coatings: Antireflective and Self Cleaning Dr. Gundula Helsch, TU Clausthal

10.30 - 11.15 COFFEE BREAK

11.15 Gradient Refractive Index Antireflection Films for Solar Energy Application Dr. M. Minot, MinoTech Engineering Inc.

11.35 Local Initiators of Glass Alteration Prof. Edda Rödlein, TU Ilmenau

11.55 Bipolar DC Waveform Characterization Mr. Ken Nauman, Advanced Energy Industries Inc.

12.15 - 13.45 LUNCH

13.45 Analysis of Long Term Creep of PVB Encapsulant

Dr. Witold Szydlowski, Solutia Inc.

14.15 Anti-reflective Hybrid Coatings for Glass Application

Dr. K. Matloka, DSM Functional coatings

14.35 TCO Production Equipment Requirements for Solar Applications Mr. Erkki Seppäläinen, Beneq Oy

14.55 Off-line annealed TCO glass production equipment requirements: CASE Glaston-Beneq Off-line TFC2000

Mr. Miika Äppelqvist, Glaston Finland Oy 15.15 - 16.00 COFFEE BREAK

16.00 The Role of The Getter in the Glass to Glass Encapsulation

Mr. Antonio Bonucci, SAES Getters

6.20 Advanced Ionomer Encapsulants for Thin Film Technology

Mr. Michael Fehlings, DuPont de Nemours (Deutschland) GmbH

16.40 Benefits of Innovative Encapsulants for Micromorph Technology

Mr. Christos Sarigiannidis, Heliosphera SA

17.00 Performance Enhancements in α-Si:H/ μc-Si:H Thin Film Solar Cell... Mr. B. Szyszka, Fraunhofer IST



Laminated Glass/Process/Design

Chairpersons: Uwe Keller - Kuraray Europe GmbH Division Trosifol & Julia Schimmelpenningh - Solutia

13.45 Adhesion, Creep and Relaxation Properties of PVB in Laminated...

Dr. Leonardo Lani, University of Pisa

- 14.05 Lamination of Complex Laminates with PVB interlayer Mr. Dan Dominaos, Solutia Inc
- **14.35 Comparison of Laminated Glass Charts...** Dr. Stephen Morse, Texas Tech Univ.
- 14.55 Inorganically Filled PVB-film for Active Light Control Dr. Jan Beekhuizen, Kuraray Europe GmbH, Division TROSIFOL
- 15.15 16.00 COFFEE BREAK

16.00 High Performance Interlayer Enables Cost Efficient Glazing

Mr. Ingo Stelzer, DuPont de Nemours

- **16.20 Ageing Behaviour of Polymeric Interlayer...** Mr. Michael Kothe, TU Dresden
- 16.40 Innovations in Glass Design... Mr. James O'Callaghan, Eckersley O'Callaghan Structural Design
- 17.00 Where High Dense Colors Meets Transparancy is Sublistyle Mr. van Dijken, Van Dijken Glas BV
- 17.20 Innovation and Quality Improvement in Curved Glass Mr. Robert Renat, Glasid AG

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Sunday, June 19, 2011

New Products and Applications

Chairperson: N. Wruk, Pilkington Deutschland AG

9.00 Can Glass Compete with Acrylics in Large Aquarium Enclosures? Mr. A.V. Majoral, Strain Engineering

9.30 Innovative Projects with New Buildina **Materials**

Dr. C. Eckhardt, Evonik Röhm GmbH

10.00 Energy Savings by Intelligent Solar Controlled Windows Mr. Kim Hjorth Rasmussen, VELUX A/S

0.30 - 11.15 COFFEE BREAK

11.15 Transparent Electromagnetic Absorber for Electroic Toll Collection Systems on High Ways

Dr. Tetsuya Hiramatsu, AGC Glass Japan/Asia

11.35 New Application for Media Façade Including Both Real LED Display in Glass and Transparent Uniform LED Lighting. Mr. H. Lefèvre, AGC Glass Europe

11.55 Post-applied Film to Improve the Fire Resistance of Existing Glass Facades Mr. Y. Misawa, Ove Arup and partners

2.15 - 13.45 LUNCH

13.45 Perforated Steel Plate to Laminated **Glass Adhesive Properties** Mr. Paulo Carvalho, School of Architecture -University of Minho

14.15 Broad Screening of Adhesives for **Glass-metal Bonds**

Prof. Dr. ir.-arch. J. Belis, Ghent Univ.

14.35 Novel Connections for Steel-Glass and **Glass-Glass Structures**

Mr. James Watson, University of Cambridge

14.55 Hybrid Steel – Glass Beams with **Polymer Adhesive** Mr. Michal Netusil, Czech TU

5.15 - 16.00 COFFEE BREAK

16.00 USB UltraSonic Bond – Dovetailing Flat Glass and Metal as an Alternative to Glue, **Drill & Screw**

Mr. Wolfaana Friedl, Grenzebach Maschinenbau GmhH

16.20 Bent Glass in Four-Point Bending Test Dipl.-Ing. P. Krampe, TU Dresden

16.40 Purely Structural Glass Building Envelopes

Mr. Kassnel-Henneberg, Seele Sedak

17.00 Validity Check for Heat Soak Test Dr. Thomas Rainer, boraident GmbH

17.20 Ceramic Digital Printing - Customizing Glass Facade Design Mr. Bernd Hoffmann, Hoffmann GTD

Architectural Challenaes & Solutions

Chairpersons: L.Carbary - Dow Corning & G. Dodd - Arup Materials Consulting

7.00 Considerations for the Condensation **Resistance of Fenestration Assemblies** Mr. Tracy Rogers, Edgetech IG

9.30 Electronically Tintable Glass as an Architectural Enabler Dr. Sanders, SAGE Electrochromics, Inc.

9.50 Glorious Golden Glass - Manufactu-rina **Processes from Past to Future** Mr. Chris Barry, Pilkington NA Inc

0.10 Durability of SG-laminated Reinforced **Glass Beams** Mr. C. Louter, École Polytechnique Fédérale de

Lausanne (EPFL)

0.30 - 11.15 COFFEE BREAK

1.15 Determination of the Adhesion of Modern Adhesives to Historic Iron by Lap Shear Tests

Ms. L. Lauriks, Vrije Universiteit Brussel 11.35 Buckling Stability of Clamped In-plane

Loaded Glass Panes Dr. Stefan Reich, TU Dresden

1.55 Discretization of the Free-form Surfaces by Plane Elements Derived from Tangent Planes

Dr. Milena Stavric, TU Graz

2.15 - 13.45 LUNCH

13.45 Case Studies: The Icelandic National **Concert & Conference Centre** Mr. Steen Elsted Andersen, Henning Larsen Architects

4.15 Case Studies in Optimization of Glasspanelized Architectural Freeform Designs

Dr. Michael Eigensatz, Evolute GmbH

4.45 Inextensional Theory Applied to Coldbent Glass Built-in Stress Evaluation Mr. Raphaël Royer De Vericourt, RFR

5.15 - 16.00 COFFEE BREAK

6.00 Structural Response of Multi-story **Double-skin Facades**

Mr. Jeffrey Vaglio, Enclos Corp

6.20 Experience with Adhesives in Term of Structural Use of Glass in Germany Mr. Matthias Seel, Universität der Bundeswehr München

16.40 Large Corrugated Glass Facades Prof. Rob Nijsse, TU Delft

7.00 Double Curved Glass Shells from Cold **Bent Glass Laminates**

Mr. Thiemo Fildhuth, ITKE - University of Stuttgart

Solar - Applications

Chairpersons: Bernhard Koll - Kuraray Europe **GmbH** Division Trosifol & Volker Gever - Scheuten Solar

9.00 An Overlook on PV in the Glass Sector Mr. Reinhold Buttgereit, Secretary General of EPIA

9.30 New Developments in the Commercialization of Glass... Mr. Marc Thomas, Dyesol, Inc. & GM Glass **Business** Group

10.00 IGU and Solar Panel Application Optimization with Numerical...

Mr. Stanislav Chesnokov, Glass Research Institute

10.30 - 11.15 COFFEE BREAK

11.15 Enhancement of Energy Efficiency at **Glass Tube Fusing** Mr. Hendrik Gebauer, Laser Zentrum Hannover

11.35 Building Integrated Photovoltaic -Outlook and Chances for the Glass Industry Mr. Uwe Hering, Odersun AG

11.55 Challenge of Producing Dedicated **Glass for PV** Applications Mr. Hans Mahrenholtz, glass global consulting GmbH

12.15 - 13.45 LUNCH

13.45 Innovations Around Anti-reflective Coatings for Solar Glass and Their...

Mr. Florian Haacke, Apricum - The Cleantech Advisory

14.05 Improvement of Performance and Cost of Functional Films Using Laser Area Laser RTP

Dr. Paul Harten, LIMO Lissotschenko Mikrooptik GmbH

Solar - Quality

Chairpersons: Bernhard Koll - Kuraray Europe **GmbH** Division Trosifol & Volker Gever - Scheuten Solar

14.25 Extreme Soiling of PV-modules Mr. Karl-Anders Weiß, Fraunhofer ISE

14.55 The Hidden Costs of Dirt on Solar Panels

Mr. Stephen Byers & Mr. Chris May, Ritec

15,15 - 16,00 COFFEE BREAK

16.00 Defect Inspection and Precision Measurement in Solar Glass... Mr. Kenneth Wawrew, SynergX

16.20 Evaluation of the Performance of Solar

Glass Used for PV-modules Mr. Karl-Anders Weiß, Fraunhofer ISE

16.40 Thin Glass Technology for Incapsulated Solar Panels

Ing. Richard Bruckner, INOVA-LiSEC Technologiezentrum GmbH

High-level Automation & Quality Manaaement

Chairpersons: K. Mühlhans - Glaston & .Wahlers - ISRA Surface Vision GmbH

9.00 Optical Quality Assurance and Process Control

Mr. Hans Örley, Dr. Schenk GmbH

9.30 The Strength of Water Jet Cut Glass Dr. Frederic Veer, TU Delft

10.00 The Total Benefit of a Quality-Scanner... Mr. Kai Vogel, Viprotron GmbH

0.30 - 11.15 COFFEE BREAK

11.15 Product Individualization – The new... Dr. Thomas Rainer, boraident GmbH

1.35 Polishing Glass by Means of Water Jet Technology – Cross-disciplinary... Ms. Maria Lana, Glafo

1.55 Influence of Experimental Test Type on the Determination of Probabilistic... Prof Mª C. Huerta, PU Madrid

2.15 - 13.45 LUNCH

Standards and Measurements for Mechanical Strength of Glass

Chairpersons: Jeff Haberer - Cardinal Glass Industries & I. Calderone - Calderone and Assoc.

13.45 Blast Resistant Glazing Design Dr. Stephen Bennison, DuPont

14.05 Maximum Principal Stress and Probability of Breakage for Glass... Prof. Scott Norville, Texas Tech Univ.

14.25 New German DIN Standard DIN 18008 for Design of Glass Elements Mr. M. Seel, Univ. der Bundeswehr München

14.45 History and Update on the Use of ASTM E1300 for Glass Strength Mr. Jeff Haberer, Cardinal Glass Ind.

15.05 A Critique of Glass Design Methods

16.00 Edge Strength of Cut and Polished

Mr. Marc Vandebroek, Artesis Hogeschool

Dr. Stephen Morse, Texas Tech Univ.

16.40 On the Activity of the Russian...

16.20 An Analytical Method for Determining...

Dr. Alexander Chesnokov, Glass Research Institute

Dr. Ignatius Calderone, Calderone and Assoc

and Conversion Between Global...

5.25 - 16.00 COFFEE BREAK

Glass Beams

Antwerpen

GPD 2011 | conference | glass expo | 17 – 20 June | Workshops | 16 - 17 June Full programme with abstracts and registration at www.gpd.fi/finland

City Reception 17.00 - 19.00

Facade Session - Advanced Architectural Glass Application

Chairpersons: Leon Jacob - Jacob & Associates & Keith Boswell - SOM

- 9.00 Double Skin Building Enclosures... Mr. Keith Boswell, SOM
- 9.30 The Facade Consultant: Creativity and Technical Innovation in Glass Mr. Peter Smithson, BGE Façades
- 10.00 Structural Glass Facade Technology as... Mr. Mic Patterson, Enclos

10.30 - 11.15 COFFEE BREAK

- 11.15 Main Entrance Facade for the First Site... Mr. Gennady Vasilchenko-Malishev, Malishev Wilson Engineers
- 11.35 Innovative Glass Facades with... Mr. Olaf Tiegel, Sefar
- 11.55 The Influence of Scratches on the **Residual Strength of Window glass** Dr. Leon Jacob, Jacob & Associates

12.25 - 13.45 LUNCH

Glass in Buildinas

Chairpersons: Thomas Henriksen, Waagner Biro & Lucio Blandini, Werner Sobek Stuttaart

- 13.45 Experimentation and Testing the Use of Electrochromic Windows... Prof. G. Loddo, Cagliari Univ.
- 14.05 Switchable Glazing for Architectural
- Applications Based on Liquid... Dr. Walter Haase, ILEK
- 14.25 Timber/Glass Adhesively Bonded I-beams

Ms. Louise Blyberg, Linnæus Univ.

- 14.45 Effects of Glazing Colour Types on Daylight Quality, Arousal and... Ms. Helene Arsenault, Univ. Laval
- 15.05 New Developments in Claddinas: ... Mr. J. Astudillo Larraz, Fundación CIDEMCO
- 15.25 16.00 COFFEE BREAK
- 16.00 Development of a New Façade System with Hybrid Glass-steel Elements Mr. T. Weimar, TU Dresden
- 16.20 The Features of Fracture and... Dr. Yurii Rodichev, G.S. Pisarenko Institute for Problems of Strength
- 16.40 Rethinking Glass New Design... Ms. Kerstin Puller, ILEK
- 17.00 How to Accommodate Blast Loads on... M. Sc Thomas Henriksen, Waagner Biro

Monday, June 20, 2011

IGU and Window Technology

Chairpersons: Randolf Karrer - IGK solierglasklebstoffe GmbH & Fracy Rogers - Edgetech IG

.00 Integration of Window Bonding into IG **Production Line**

Mr. Klaus Puschmann, Bystronic glass c/o Bystronic Lenhardt GmbH

9.30 Mechanical Deformations in a Vacuum Glazing; a Finite Element Modeling Study Dr. Cenk Kocer, University of Sydney

10.00 Vacuum-Insulating-Glass vs. Triple-Insulating-Glass: Clear Superiority, Taking on a Challenge or Riding Two Abreast? Mr. Wolfgang Friedl, Grenzebach Maschinenbau GmbH

0.30 - 11.15 COFFEE BREAK

11.15 Spring Stiffness of the Edge Sealing in Curved Insulated Glass Units

Dr. Jürgen Neugebauer, University of Applied Sciences - FH Joanneum

11.45 Compatibility in Facade and Fenestration

Dr. Wolfgang Wittwer, Kömmerling Chemische Fabrik GmbH

2.15 - 13.45 LUNCH

3.45 Experiences of Triple Pane IG-units During 40 Years of Use in Nordic Countries Mr. Ismo Heimonen & Mr. Kari Hemmilä, VTT Technical Research Centre of Finland

4.05 Life Cycle Analysis and Durability of **Building Adhesives** Dr. Patrick Vandereecken, Dow Corning Europe

14.35 Practical Aspects of Manufacturing Triple Insulating Glasses for Central **European Markets**

Dr. Klaus Huntebrinker, ISOLAR-Glas-Beratung GmbH

14.55 Triple Glazing – Challenges and Solutions

Dr. Wolfgang Wittwer, Kömmerling Chemische Fabrik GmbH

5.15 - 16.00 COFFEE BREAK

6.00 Load Sharing and Load Resistance in Triple Glazed Insulating Glass Units Prof. Scott Norville, Texas Tech University

6.20 Application & Possibilities of Triple Layer Insulating Glass Units

Mr. Michael Elstner, Interpane Glasgesellschaft mhH

16.40 Thin Glass Technology for Insulating **Glass** Production

Mr. Peter Holzinger, LiSEC Maschinenbau GmbH

Structural Engineering - Case Studies

Chairpersons: L.Carbary - Dow Corning & G.Dodd - Arup Materials Consulting

9.00 Glass Special Structures - Recent Projects, New Challenges Dr. L. Blandini, Werner Sobek Stuttgart

9.30 Behaviour of a Tall Glass Shear Wall Dr. P. Lenk, Eckersley O'Callaghan

9.50 Lincoln Center Canopies - Glass Supporting Steel

Mr. M. Ludvik, M.Ludvik Engineering

10.10 Composite Steel-glass Fins for the Lobby Façade of Iberdrola Tower Ms. Núria Guitart, Bellapart, S.A.U.

10.30 - 11.15 COFFEE BREAK

11.15 The Mall of Arabia in Jeddah -Generating Added Value for... Mr. D. Schulte, APG Middle East FZC

11.45 Structural Behaviour of GFRP **Reinforced Glass Beams**

Prof. E. Speranzini, Univ. Perugia - DICA

2.15 - 13.45 LUNCH

13.45 Decoupled Sequential Single Degree of Freedom Analysis

Mr. James Casper, Enclos Corp

14.15 What Happens When Regulations Do Not Keep Up with Best Practice Mr. Richard Green, Front Inc.

14.45 Blast Enhanced Cable Facades Dr. Frank Wellershoff, Gartner Steel and Glass

15.15 - 16.00 COFFEE BREAK

16.00 A New Folding Glass Roof for the Historic City Swimming Hall Zürich Mr. Philippe Willareth, Dr. Lüchinger + Meyer Bauingenieure AG

6.30 The Brisbane Supreme Court and District Court - Pushing the Envelope of ... Mr. Neil Kendrick, Lend Lease

6.50 Glass Connection - an Elegant Glass Bridge for the Center for the... Mr. Christoph Paech, SBP GmbH

7.10 Strength Influencing Factors of Cyclic Loaded Glass Panes

Dr. Kaja Boxheimer, TU Darmstadt

Bonding and Point Fixing of Glass

Chairpersons: Leon Jacob - Jacob & Associates & Keith Boswell - SOM

9.00 Transparent Structural Silicone Adhesive Mr. Peter Hutley, CDC Inc/sponsored by Dow Cornina

9.30 The Problem of a Failure Criterion for **Glass-metal Adhesive Bonds**

Mr. Dieter Callewaert, Ghent University 9.50 High-Strength Glass Bonding - a New

Era in Facade Design? Dr. Werner Wagner, Sika Services AG

10.10 Development of Adhesive Point-Fixings Mr. Arno Van Hulle, Ghent University

10.30 - 11.15 COFFEE BREAK

11.15 Determination of Load Carrying Capacity and Service Ability... Mr. M. Seel, Univ. der Bundeswehr München

11.35 Behaviour of Thin Adhesive Foam... Ms. Claire Grenier, CSTB

11.55 Determination of Curina for **Transparent Epoxy Resin Adhesives** Mrs. Christiane Kothe, TU Dresden

12.15 Investigation of Surface Modification Methods to Improve Adhesive... Mrs. Christiane Kothe, TU Dresden

12.35 Experimental Analysis of Embedded... Mr. Paulo Carvalho, Univ. of Minho

All Vehicles

Chairpersons: Vincent I. Henry - Henry Technology Solutions L.L.C & Dr. Klaus Preusser, Consultant

.00 Glass and EVs – Solutions for Today and the Future

Mr. Aimo Åhlman, Valmet Automotive

9.30 Automotive Glass Coatings from History until Today

Prof. Yasunori Taga, Chubu University

0.00 Feasibility of Lead Free Soldering on Glass

Mr. Hagen Rakus, VW

0.30 - 11.15 COFFEE BREAK

.15 Developing Windscreen Efficiency Demands

Mr. Mathew Rose, Solutia Inc.

1.45 Designing Windshields with PVB Interlayer for Enhanced Noise Reduction and Weight Savings Prof. Jun Lu, Solutia Inc

12.15 - 13.45 LUNCH

3.45 New Capabilities of Today's Automotive **Glass Equipment** Mr. Lorenz Buri, Bystronic Glass

14.15 Accelerated Quality Assurance – The Future

Mr. Christian Krenn, Softsolution GmbH

14.45 Room Temperature Joining of Organic/Inorganic Material Systems Prof. Yasunori Taga, Chubu University

15.15 - 16.00 COFFEE BREAK

6.00 Laminated Glass for Modern Railway Glazina

Mr. Ingo Stelzer, DuPont de Nemours

6.30 Laminated Glass for Modern Marine Glazing

Mr. Sandro Casaccio, DuPont Glass Laminating

17.00 Development of Magic Sky Control with Focus on Aging Stability Ms. Jana Moll, Daimler AG

> Read full abstracts of all GPD Finland 2011 presentations at www.gpd.fi/finland/abstracts

GPD 2011 | conference | glass expo | 17 – 20 June | Workshops | 16 - 17 June Full programme with abstracts and registration at www.gpd.fi/finland

Farewell Party 19.00 - until sunrise

Changing Markets - Local vs. Global Chairperson: H. Hohenstein - Dr. Hohenstein Consultancy

- 9.00 The World Flat Glass Industry Proposals for an Education on History & Economy Mr. Bernard Jean Savaëte, BJS.Différences
- 9.40 The Huge Impact on the Chinese Energy Efficiency Building Market through Low-E Coatings in Cold and Hot Climates Dr. Helmut Hohenstein, Dr. Hohenstein

Consultancy

10.00 Technical Regulation System **Development and Flat Glass Market...** Mr. Lev Shakhnes, Union of Glass Companies

10.20 A Digital LED Screen for Facade Application

Dr. Manfred Arnold, INGLAS

10.35 - 11.15 COFFEE BREAK

- 11.15 Glazed Balcony Input of Scandinavian Innovation to European Living Mr. Pete Lattunen, Lumon International
- 11.45 The GlasHaus a Concept for Residential Use of High-performance Glass Mr. Jeppe Hundevad, APG Europe GmbH

12,15 - 13,45 LUNCH

13.45 Principle and Current Status of Vacuum **Glass Technology** Dr. Helmut Hohenstein, Dr. Hohenstein

Consultancy

14.15 Holistic Building Climate Design - The **Users Point of View**

Mr. Christoph Mitterer, Fraunhofer Institute for **Building Physics**

14.45 New LED Transparent Screens in IG for Facade Construction - a New World Brand Mr. Reinhard Cordes, Only Glass

15.15 - 16.00 COFFEE BREAK

- 16.00 Glass and Glazing Industry Resources, Standards, Codes and Associations Mrs. Urmilla Jokhu-Sowell, GANA
- 16.30 Industry Trends in the UK 2010/2011 & Bevond

Mr. Nigel Rees, GGF

GPD 2011 | conference | glass expo | 17 – 20 June | Workshops | 16 - 17 June Full programme with abstracts and registration at www.gpd.fi/finland

Energy Performance in Buildings

The Energy Performance of Buildings Directive: **Opportunities for the Glass Industry!**

Mr. Rick Wilberforce, Glass for Europe

- Field Investigation of Thermo Technical Characteristics of Transparent Double-skin Façade and Microclimate Parameters of Internal Premises of the Model of Atypical Dr. Stanislav Tikhomirnov, NIISF RAABS
- Air Permeability of an PVC-Window When Exposed to **Freezing Temperatures**

Dr. Alexey Verkhovskiy, Research Institute Of Building Physics (NIISF RAABS)

New Solar Reflective Glasses by Sol-gel Method Prof. Zoulfia Nagamedianova, Tecnología Automotriz

New Products and Applications

PVD-Technologies for Self-Cleaning and Antibacterial Applications on Glass and Plastics Ms. Denise Kößler, Fraunhofer IST

New Glass-ceramics and Technologies Optimized on Structural Strength Criteria

Dr. Yurii Rodichev, G.S. Pisarenko Institute for Problems of Strength

Comparison of Optical Properties of Glass Modified by Surface Ion Exchange and Chemical Etching Dr. Olga Sidelnikova, Institute of Solid State Chemistry and

Mechanochemistry

Structural Engineering - Case Studies

A New Connection Method for Annealed Float Glass Dr. Frederic Veer, TU Delft

Pre-stressed Glass Beams

Mr. Miguel Ángel Núñez Díaz, ENAR

An Innovative Glass Connection Technique Using an **Ionomer Interlaver**

Ms. Kerstin Puller, ILEK (Institute for Lightweight Structures and Conceptual Design), University of Stuttgart

Tempering / Pre-processing

Characterisation of the Scratch Resistance of Annealed andTempered Architectural Glass Mr. Sebastian Schula, TU Darmstadt

Quality Test for Uncoated Tempered Glass Surfaces Mr. Gary Mauer, Window Cleaning Network

Product and Process Case studies

Vacuum-Insulating-Glass: The German Way of VIGproduction

Mr. Wolfgang Friedl, Grenzebach Maschinenbau GmbH

Laminated Glass / Process / Desian

nvestigation of Strength Properties of Laminated Glass with Different Bonding Materials

Mr. Stanislav Chesnokov, Glass Research Institute

High-level Automation & Quality Management

Hidden Damage from the Cutting Process in Cut, Ground

and Polished Glass

Dr. Frederic Veer, Delft University of Technology

Aethods of Strength and Quality Control of Glass and Glass-ceramic Structural Parts

Dr. Yurii Rodichev, G.S. Pisarenko Institute for Problems of Strength

IGU and Window Technology

Serviceability Performance and Failures of IGUs & **Environmental Action**

Ms. Minxi Bao, University of Birmingham

Read full abstracts of all GPD Finland 2011 presentations at www.gpd.fi/finland/abstracts

WORKSHOP 15: The Future of Architectural Glass Industry

Time: Friday June 17, 2011 at 09.00-13.00 • Price 350€ + VAT 23%

Which are the megatrends defining the architectural glass industry in the future? Courage, creativity and business intelligence are fed during this innovative workshop targeted to the top management, factory owners, professionals of product development and sales and marketing. After mind-opening introduction speech the participants will concentrate on defining the future trends. The fruits of the teamwork and group discussion will be collected and summed in the conclusion speech.

Forget the crystal ball - this workshop is the place to get a vision of the future of the architectural glass industry!

- persons max • trend groups are hosted by senior consults who apply advanced workshop methods into the group work
- ready-made trend lists fuel the group discussion, whose target is to create as many innovative future trend as possible to be added in the lists
- each group will eliminate trends from the lists so that the top 10 trends most likely to actualize in 2011-2020 are left

9:00	The Future of Architectural Glass Industry							
	introduction speech to all the participants							
\bigtriangledown	\bigtriangledown	\bigtriangledown	\bigtriangledown					
9:45	Environmental and Legal Trends introduction speech	Technology Trends introduction speech	Global, Customer and Market Trends introduction speech					
:15 ▽ .00	discussion about trends	discussion about trends	discussion about trends					
\bigtriangledown	\bigtriangledown	\bigtriangledown	\bigtriangledown					
.00	Conclusion							
7								
.30 7	CEO Lunch invited quests + press + sponsors + WS The Future of the Architectural Glass Industry							
.00		•						

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09





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30-50 workshop participants in total

participants will be divided into trend groups of 15

• the top trends are summed into the workshop conclusion

Register to this and other workshops via the on-line registration form at www.gpd.fi/registration



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ALL-ROUND FOCUS on single topics

GPD workshops are designed to provide participants with the opportunity to acquire more indepth knowledge of various topics. They are intensive 4-8 -hour courses with each focusing on techniques and skills in a particular field. Participants get detailed information on various subjects, answers to their queries and updates on the latest developments. The workshops will take place before the conference. The main emphasis is interaction and exchange of information among relatively small groups e.g. the number of participants for practical workshops will be limited to 15 persons and 20-50 persons for theoretical workshops.

Registration for workshops is done while registering for the conference. This year the registration will be done on-line at www.gpd.fi/finland. More information on registration on page 17. The deadline for workshop registration is May 31, 2011. Please note that in the

event of an insufficient number of participants by the deadline, the workshop may be cancelled by the workshop organizer. If you wish to participate in one or more of the workshops, please indicate so on the reaistration form.

Workshop Prices:

before April 15, 2011:	120€	230€
from April 15 to May 31, 2011:	200€	300€
+ 23% VAT to all prices		

If participating to Workshops only, the price is $+100 \in$.

NOTE! The organizer or the speaker of the workshop reserves the right to accept participants.

Full workshop descriptions and details are available at www.gpd.fi/workshops.



WORKSHOPS on Thursday, June 16

WS01: Structural Properties of Laminated Glass

Dr. Stephen J. Bennison and Mr. Ingo Stelzer, E.I. DuPont de Nemours & Co. Inc. Glass Laminating Solutions Time: 09.00-16.00 • Price 120€ + VAT 23%

- Interlayer properties
- Key concepts in the mechanical properties of glass
- Stress analysis of laminate beams and plates
- Available software tools for analysis
- Established and developing standards and codes of practice
- Design methodologies: facades, overhead glazing, flooring, balustrades, frameless glazing
- Case studies of design solutions with laminated glass

WS02: Optimizing Cutting and Grinding

Michael Emonds, Aachener Chemische Werke & Peter Pokoern, Bohle AG

Time: 09.00-17.00 • Price 120€ + VAT 23%

- Theory and practice of glass cutting and glass processing using diamond tools
- Cutting wheel, Cutting fluid
- Coolant chemistry
- Edge strength via vertical bend test
- Effect of surface finish and different coolants

WS03: Glass Tempering Process Basics: Fundamental Steps in Tempering and Machine Test Runs

Veli-Jukka Kuusiniemi, Tarmo Pesonen, Miika Äppelavist, Glaston

Time: 9.00-17.00 • Price 120€ + VAT 23%

- Glass tempering theory and process know-how
- Quality influencers
- Effect of latest coating developments to tempering
- Different flat tempering technologies
- Practical tempering demonstration



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WS05: Laminated Glass in Architectural Glass Structures – Coated, Colored, Curved, EVA, PVB, SGP - You name It!

Leo Breukers, Bridgestone & Ari Uusikartano, Tambest Glass Solutions & Luc Moyersons, DuPont Time: 09.00-17.00 • Price 120€ + VAT 23% • EVA laminating – requirements and possibilities • Curved and tempered glass in laminating process • Coated glass behavior in heating process • Sentry Glass Plus features • Insight to Photovoltaic industry and laminated structures



Reasons

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WS04: Managing Quality in Glass **Processing** (Educational and commercial, including demos)

Juha Liettyä, Maaret Manninen, Glaston & Mikko Suomi,

Time: 09.00-17.00 • Price 120€ + VAT 23%

• Most important tempered glass quality indicators • Quality measurement points in tempering process • Quality measurement tools • On-line glass quality measurement Iridescence / anisotropy phenomenon

WS06: Oh Dear! - Glass Problems and

John Colvin, JCGC Limited

Time: 09.00-16.00 • Price 230€ + VAT 23%

• A random discussion and explanation of alass problems • Breakages and reasons for them - how to analyse

• Appearance problems and reasons for them

• Attendees are invited to bring examples of problems for discussion

• ANY guery about glass and glass performance can be

Workshop listing continues on the next page »



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WORKSHOPS on Thursday, June 16 continues

WS07: Benea Coating Workshop – Industrial Aerosol Coating and Atomic Layer Deposition

Beneg Coating Team, Beneg Oy Time: 12.00-18.00 • Price 120€ + VAT 23% This workshop will be held in Helsinki

- The world getting thinner with Beneg
 - Company status
 - Market development
 - Future prospects
- Aerosol coating
 - nAERO® Process parameters and capabilities - Off-line demo for TCO (PV and Low-e)
 - Industrial in-line and off-line configurations (incl. Beneq-Glaston TFC2000[™])
 - nHALO® Process parameters and capabilities
 - Sample showroom & Laboratory tour
- ٠ Atomic Layer Deposition
 - ALD Process capabilities for glass:
 - Photovoltaic applications
 - Moisture barriers for organic and flexible electronics
 - Display (glass strengthening)

- Emerging technologies (incl. Particle ALD[™] and Continuous ALD)

- Research

Sample showroom & Laboratory tour

WS09: Art of Gravity Bending Windshields

Mika Eronen, Safety Glass Experts International Oy Ltd Time: 09.00-16.00 • Price 230€ + VAT 23%

- Infrared heating theory and how to control it
- Bending Process step by step from loading to unloading
- Tips and solutions how to produce perfect edge shape and geometry
- Challenges of gravity bending
- Bending process variables and elimination
- Typical errors and avoiding them
- Quality controls after bending

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WS10: History – Today – Tomorrow: Milestones to Better Understand the Flat Glass Business

Bernard Jean Savaëte, BJS.Différences Time: 09 00-16 00 • Price 230€ + VAT 23%

- Glass as a 5000 years old material
- Float glass, 40 years of major changes in Europe and key players of the global flat glass business
- A window through 100 years of automobile glazing
- Coatings on glass (including mirrors), key companions of glass body
- IG units (yesterday, today and tomorrow)
- Two key safety glass products: laminated and tempered glass, from amusement to necessity
- Patents, knowledge sourcing
- Some challenges for Europe and global flat glass industry

Full workshop descriptions at www.gpd.fi/workshops



WORKSHOPS on Friday, June 17

WS08: Customizing Decorative Glass Facade. From Design to Implementation -Using Digital Printing with Ceramic Ink Technology

Yariv Ninyo, DipTech

- Time: 09.00-13.00 Price 120€ + VAT 23%
- When and why to use digital printing
- Digital printing background and history
- Digital printing workflow
- Ceramic ink characteristics
- Digital printing projects worldwide use cases
- Digital printing current and future
- Open discussion
- Machine demonstration at a nearby glass processing factorv

WS13: Solar Power: Opportunities for the Glass Industry

Glaston Presenter & Markku Rajala, Beneg & Andreas Karpinski, Kuraray & Olivier Mal, AGC & Bernd Szyszka, Fraunhofer IST & Stephen Byers, Ritec

Time: 08:30-14:30 • Price 120€ + VAT 23%

- Solar market review
- Photovoltaic PV technologies
- TCO coatings
- Thermal collectors
- CSP solar thermal power generation
- Surface protection
- Economics of solar power
- Building Integrated PV (BIPV)
- Solar glass performance and processing

WS14: Fundaments of Glass Strength, Stress Analysis and Design Methods for Glass Selection and Use in Buildings

Dr. Leon Jacob, Jacob & Associates Pty Ltd Time: Friday● Price 230€ + VAT 23%

• Material properties – Glass, pvb and SGP interlayers









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- Discussion on permissible and ultimate design stresses for use with glass plates
- Fracture behaviour
- Glass plate behaviour subjected to uniform and other
- FEA methods and issues related to stress analysis of glass plates
- Stress analysis for glass plates monolithic and laminated
- Response of glass plates to different load
- Review of some glass design codes
- Simplified methods for the analysis of glass to loading

WS15: The Future of Architectural Glass Industry (see also the ad on page 8)

- Time:9.00-13.00 Price 350€ + VAT 23%
- Mind-opening introduction
- Environmental and Legal Trends
- Global, Customer and Market Trends
- Technology Trends

Workshop listing continues on the next page »



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GPD 2011 | conference | glass expo | 17 – 20 June | Workshops | 16 - 17 June Full programme with abstracts and registration at www.gpd.fi/finland

WORKSHOPS on Friday, June 17 continues

WS17: Structural Glass Façades and Enclosures

Mic Patterson, Jeff Vaglio & Michael Ludvik, Advanced Technology Studio | Enclos

Time: 10.00-17.00 • Price 120€ + VAT 23%

- High transparency facades
- Structural system types
- Glass considerations
- Glass system types
- Steel fabrication considerations
- Cable nets
- All glass structures
- Double-skin applications
- Thermal and acoustical performance
- Solar control strategies
- Project delivery strategies ٠
- Means and methods
 Case studies

WS18: Glass Surface Treatment: Washing, Polishing, Corrosion Protection

Aachener Chemische Werke, TU Ilmenau, Grafotec Time: 09.00-16.00 • Price 120€ + VAT 23%

- Native/aged glass surface
- Typical defects
- Glass surface analysis
- Glass corrosion
- Corrosion inhibition
- Glass washing
- Corrosion protection application technology
- Corrosion simulation test methods

Full workshop descriptions at www.gpd.fi/workshops

GPD is supported by the following Trade Fairs & Conferences:

Related Trade Fairs

Glass Week Las Vegas, NV, USA March 24-27, 2011 www.glasswebsite.com

China Glass 2011 Shanghai, China • May 11-14, 2011 www.chinaglass-expo.com

AIA 2011 National Convention & Design Exposition New Orleans, USA • May 12-15, 2011 www.aiaconvention.com

GlassBuild America 2011 Atlanta, GA, USA September 12-14, 2011 www.glassbuildamerica.com

Vitrum 2011 Milan, Italy • October 26-29, 2011 www.vitrum-milano.it

fensterbau/frontale 2012 Nürnberg, Germany March 21-24, 2012 www.frontale.de

Glasstec 2012 Düsseldorf, Germany 23-26 October 2012 www.glasstec-online.com

BEC Conference Las Vegas, NV, USA March 27-29, 2011

GPD China 2011

Shaghai, China May 9-10, 2011 www.gpd.fi/china

Auto Glass Week Memphis, TN, USA

Ausfenex 2011 Gold Coast, Australia September 21-23, 2011

ICCG 2012

Breda, The Neatherlands June 24-28, 2012 www.iccg.eu

ICG XXIII International Congress Prague, Czech Republic 2013

www.icg.group.shef.ac.uk

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Related Conferences

www.glasswebsite.com

September 15-17, 2011 www.autoglassweek.com



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Glass expo june 17-20 MEET THE GLASS Industry's Key Players

The exhibition will be located in the Sorsapuistosali in Tampere Hall. In addition, all coffees and lunches will be served there.

This combination of activities will provide exhibitors the best platform to showcase or launch products, services and know-how to the attending glass community.

The exhibition will be open during the conference days from 9 a.m. to 6 p.m.

Full booking details online at www.gpd.fi/expo.

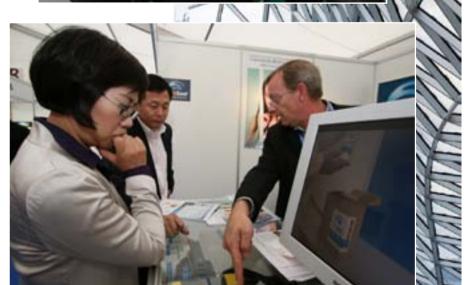


Exhibitor list

- Ausfenex
- Beneg Oy
- Bohle AG
- Bridgestone Industrial Ltd / N-Sorelle
- Bystronic Glass c/o Bystronic Lenhardt GmbH
- Cimec
- Dow Corning Europe S.A.
- Dr. Shenk
- Fraunhofer Institute
- Glasid AG
- GlasStress Ltd
- Glaston Oyi Abp
- Hegla GmbH & Co. KG
- HÜTTINGER Elektronik GmbH + Co. KG
- Interpane Glas Industrie AG
- Isra Surface Vision GmbH
- Leybold Optics GmbH
- Lumon Oy
- Mäkelä Alu Oy
- Mir Stekla
- Photosolar A/S
- Ritec International Ltd.
- Safety Glass Experts
- Sefar AG
- Sika Services AG
- Softeco Oy
- Soleras Ltd.
- Sputtering Components
- Valkeakoski
- Valmet Automotive
- W. Haldenwanger Technische Keramik GmbH & Co. KG
- Van Dijken Glas BV
- Vesuvius France SA
- Vindico Surface Technologies











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Workshops | 16 - 17 June stration at www.gpd.fi/finland

ENERGY EFFICIENCY and Solar Park

Sorsapuisto Tampere, 17-18 June 2011

The Energy Efficiency and Solar Park is targeted to consumers and glass industry professionals and it will be built in 2011 for the very first time.

Different applications of renewable energy sources, energy efficient solutions in buildings as well as safety and security glasses will be exhibited in the park. It provides exhibitors an excellent opportunity to introduce knowledge and products not only to the glass industry professionals, but to the general public as well, since there is no entrance fee into the park.

For more information, please go to www.gpd.fi/





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EVENING ACTIVITIES Meet, Share & Learn!

Get Together Party

- Friday, June 17, following the Opening Ceremony
- Venue: to be confirmed

All registered delegates and accompanying persons are invited. This event provides an excellent opportunity to meet old as well as new colleagues. Dinner and drinks will be served on complimentary basis.

Please confirm your participation during the on-line registration.

Dress code: Casual attire.

City Reception

- sponsored by the City of Tampere
- Sunday, June 19
- Venue: to be confirmed

All registered delegates and accompanying persons are invited. Snacks and drinks will be served on complimentary basis.

Please confirm your participation during the on-line registration.

Dress code: Business attire.

PS: There will be no special GPD activities after the reception. Delegates are free to arrange for meetings or dinners (at their own expense) elsewhere in Tampere.

In the summertime, many restaurants in Tampere remain closed or close early on Sundays. Thus, make your dinner bookings early to avoid disappointment. GPD will recommend good restaurants and some restaurants will have reservation tables at GPD.



Farewell Party - a Must Attend Event!

- Monday, June 20, 19.00 until sunrise
- Venue: to be confirmed

As expected, the Farewell Evening party is always something unforgettable. This is an outdoor activity to allow delegates enjoy the Finnish nature as well as the light summer nights. Comfortable shoes and warmer clothing are recommended. Dinner and drinks will be served on complimentary basis. The set up will be very informal and will include special networking opportunities, activities and memorable entertainment!

Please confirm your participation during the on-line registration. Dress code: Informal

Transport to and from all evening activities will be provided.







- Saturday, June 18

setting.

registration.

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Conference Dinner

• Venue: to be confirmed • Charges: 100€ per person (incl. VAT 23%)

Outstanding Finnish dishes, drinks and entertainment will be on offer in a unique and an impressive

Please confirm your participation during the on-line

Dress code: Business attire.





Bystronic

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Trip to the Beautiful Willows Farm Marjaniemi - on the way visiting the picturesque view point in Kangasala

Saturday, June 18, 10 - 13.30 • Price: 30€ per person



Daytrip to littala Glass Centre

Monday, June 20, 9.00-15.00 • Price: 60€ per person



Marjamäki Willows Farm is located in Kangasala, in the heart of the Finnish countryside, very near to the Tampere citv center.

Visitors can enjoy the peaceful and welcoming atmosphere, as soon as they will arrive at the gate. Altogether 14 varieties of willows for weaving and fence-making are ecologically grown in the fields, surrounding the farm. At the willows farm you can admire "the handmade willows art". The farmyard also offers outdoor sales booths and a new barn brimming with rustic furniture and home decoration products.

On the way back to Tampere the bus will stop at the view point in Kangasala which is one of the most picturesque places in Pirkanmaa.

Return bus transportation to the willows farm, tour leader's service, coffee & pastry at the farm are included in the price. Minimum number of guests 20.

This trip will take you to a versatile and charming littala Glass Centre, the center of littala glass designs. The history and modern age will meet in the same park-like surroundings. The littala glass factory museum, which is a part of the national Design Museum, tells the over 125year-long history of littala glass. On the factory tour you can experience glass production in the Hot Shop called Riihihvtti.

After the guided tour in the museum and at the factory it is time for a delicious lunch. The rest of the time, before the tour bus leaves for Tampere, you can enjoy the lovely surroundings of littala. It is fun to shop in the littala factory outlet and in the nice little boutiques. The local chocolate and honey are delicious souvenirs.

The tour will be back in Tampere around 15 pm.

Bus transportation, guided tour at littala and lunch & coffee are included in the price. Minimum number or guests 20.



Walking Tour Along the Beautiful Tammerkoski Rapids to the Old Finlayson Factory Area

Sunday, June 19, at 11.00 & 14.00 • Price 20€ per person • Departure: Sokos Hotel Ilves • Duration: 1 hour

Join to a guided walking tour along the banks of the Tammerkoski rapids, recognized as a national heritage landscape! Learn to know Tampere better!

The destination of the fresh walk will be the historical Finlayson cotton mill area; this area with its history had a strong influence on the growth of Tampere. At Werstas we will hear more about this interesting history with a visit at the Steam Engine Museum. A Sulzer steam engine that used to produce power for the Finlayson mill can still be seen in its original location. This giant machine was taken ever used in Finland.

The Finnish Ministry of Education has nominated the Finnish Labour Museum Werstas, a national special museum with extensive responsibility for museum activities pertaining to working life and social history in Finland

The price includes: guided walk in the city center, guided tour to the team engine museum at Werstas (Finnish Labour Museum). Minimum number of guests is 8.

Finnish Sauna Evening for Your Group During GPD 2011

Would you like to organize an unforgettable, relaxing, real Finnish sauna evening for your group during GPD 2011 and enjoy the special midnight sun by the lake?

We will do all the arrangements for you! The transportation can be arranged either by boat or by bus. The boat ride will take you to the scenic lake Näsijärvi and ashore 13km from the city of Tampere. You can give the traditional Finnish smoke sauna or regular sauna a try and perfect the experience with an invigorating dip into the lake. Food, beverage and program will be arranged according to your wishes.

For more information and bookings, please contact: info@meetingsmill.fi

A full listing of all the tours and activities is available at www.gpd.fi/finland. Registrations for all the GPD organized tours are done during the on-line registration.



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into use in 1900 and remains the biggest steam engine



GPD Golf Tournament: Linna Golf Hämeenlinna

Sunday, June 19, 13.30 - 22.00 • Price: 160€ per person

Linna Golf is Europe's best new course and a proud member of the European Tour Courses Group. Set amid majestic birch and pine forest on the historic Vanajan Linna Hotel estate, 100 km north of Helsinki and 80 km south of Tampere. The course has been specially designed to host top class professional events while presenting the average golfer with an enjoyable experience.

Now you have a change to enjoy golf as its best in GPD Midnight Challenge!

Program

- 13:30 Transportation from Tampere to Linna Golf
- 15:00 Starting Tee times
- 20:30 Golf buffet at the clubhouse, distribution of prizes
- 21:00 Transportation back to Tampere
- Back in Tampere 22:00

Price includes transportation, green fee, snack bag, prizes and golf buffet. If you need to hire golf clubs, please inform the organizer. Price for renting golf clubs is 25 euros/bag.



Registration for the GPD Golf Tournament is done via the conference registration form

Factory visits during GPD 2011

Factory Visits in Tampere - full details at www.gpd.fi/factory-tours

Time: TBA • Price: free of charge • The registration for the tour will take place at Glaston Expo stand during the conference hours



Glaston Corporation is an international glass technology company and a pioneer of glass processing technology and service business for glass processing machines. Glaston's well-known brands are Bavelloni in pre-processing machines and tools, Tamalass and Uniglass in safety glass machines and Albat+Wirsam in software solutions. As a globally operating company, Glaston serves its customers worldwide in over 20 locations. Glaston has production in four countries on three continents.

Read more at www.glaston.net



Rakla Oy is the biggest glass processor and wholesaler in Finland. The company product range consists of various safety glass products, insulated glass products and other specialty glass products.

During the factory visits you will be introduced to the latest development in glass processing machinery in glass heat treatment technology and pre-processing machinery. Also the latest development in the process automation, like the on-line glass quality measurement system Glaston iLooK is introduced. The latest technology can be seen in real factory environment at Rakla Oy premises where the biggest glass processor in Finland is using the latest innovations in its production.

Read more at www.rakla.fi

Factory Visits in Forssa - full details at www.gpd.fi/factory-tours Time: Mon 20 June, 2011 • Price: 50€



FENESTRA

🚺 Uusioaines Oy

Tambest Glass Solutions Oy is one of the leading total suppliers of building glass products in Europe. The company manufactures all curved and flat safety glasses.

Read more at www.tambest.com/en

Fenestra Oy is the leading window and door supplier in Finland. Their product range covers wood-aluminum-frame windows, exterior and interior doors and related services. The company has produced triple (2+1) -glazed windows for over 20 years and are now introducing quadruple (3+1) -glazed windows.

Read more at www.fenestra.fi/portal/english

Uusioaines Oy recycles glass efficiently. The company specializes in the collection, delivery and cleaning of collectable glass (packaging glass, float glass) and the preparation of cullet for industrial use as a raw material.

Read more at www.uusioaines.fi





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Fees for Participants

23% VAT and a service fee are added on all registrations fees as indicated in the following registration fee structure.

if paid by/on March 14, 2011:	1072€ + VAT 23%			
if paid by/on April 30, 2011:	1154€ + VAT 23%			
if paid on May 1, 2011 or later:	1236€ + VAT 23%			
+ service fee 45€ (incl. VAT 23%)				

VAT refunds: Download VAT refund form and read more about value added tax in Finland from www.vero.fi/english.

Participant registration fee includes:

- admission to all sessions scheduled June 17-20, 2011
- conference baa and material
- lunches and teas/coffees on conference days
- admission to Glass Expo and Energy Efficiency and Solar Park
- admission to the following evening events with dinners and drinks: Get Together Party, City Reception, Farewell Party
- transportation to and from the conference venue and evening events

Registration Fee for Accompanying Persons

100€ + VAT 23% = 123€

This fee is available only to participant's spouse (or equivalent) or child traveling and staying in the same hotel with the participant. This fee does not allow accompanying guests' entrance to the conference sessions. It includes the following items:

- accompanying guest badge
- entrance to the Opening Ceremony on June 17, 2011

HOTEL RESERVATION & REGISTRATION for the GPD Conference, Workshops and Social activities at

www.gpd.fi/registration

You should make your hotel reservation with the conference registration!

Please make sure you know your arrival and departure dates before beginning your registration. The hotel reservation dates can be modified later on.

For any changes or additions regarding your reservation and/or hotel accommodation, please contact Confedent International at gpd2011@confedent.fi.

• entrance to the following evening events with dinners, drinks and transportation: Get Together Party, City Reception, Farewell Party

Conference Dinner

Registration fees do not include the conference dinner. A separate fee of 100€ (includes tax) per person is charged for interested participants through registration. Due to the popularity of this event, we encourage early registration!

The participant registration is valid when the registration fee and service fee have been paid. If payment is done by invoice, payment must be received no later than the invoice due date. The organizer reserves the right to limit participation if necessary.

Terms of Payment

All fees should be paid in advance in EUROs. Cheques will NOT be accepted. The registration fee does not cover flights to and from Finland, insurance or accommodation. Travel insurance is recommended by the organizers.

Method of Payment

Credit card: VISA, Visa Electron and MasterCard are accepted. Please follow the payment instructions available on the registration form. Once your payment has been received, a receipt/confirmation will be sent to you for your records.

2. Invoice

NOTE! If you choose to pay by invoice an additional fee of 50€ will be charged.

3. Internet banking

An invoice will be sent to registered participants by e-mail. Participants must make their bank transfers after receiving the invoice. When making the transfer, the invoice number and participant's name must be indicated on the transfer form.

If the original invoice may be needed by post, please contact gpd2011@confedent.fi.

Cancellation terms, GPD Finland 2011

All the fees, except for the 100€ cancellation fee, will be refunded if the cancellations are made before/

by February 28, 2011. A refund of 50% will apply for the cancellations made before March 31, 2011. No refunds are offered after that date. Only written cancellations are accepted!

conditions.

The organizer reserves the right to make changes to the programme, tours, accommodation and limit the participation if necessary. The organizers cannot be held responsible for any last-minute changes to the programme, tours or accommodation. Please note that for organizational reasons, refunds will be made after the conference.

Book Accommodation on the registration form

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All fees refer to full conference rates, accompanying quest rates and conference dinner rates. This does not include rates for accommodation, tours and activities. They have their own separate terms and

To reserve and guarantee your hotel accommodation, a fee of 150€ will be charged in addition to the Participant Registration fee. The hotel reservation fee will be deducted from your total hotel fee which







is to be settled upon departure from the hotel. The organizer has made block reservations in all major hotels in Tampere and individual or personal reservations will not be accepted. All participants should make their reservation from the block through the conference registration form. Reservations will be handled on a first-come, first-served basis. Please, book accommodation early. GPD can not guarantee rooms for late bookings.

The Conference Secretariat will confirm the hotel reservation. In the confirmation letter, you will be notified of the name and address of your hotel. The exact room rate will also be indicated in the confirmation letter. The Conference hotel rates are valid only for reservations made via the Conference registration form. Prices are valid until May 16, 2011.

If you cancel your participation in the conference by March 31, 2011, the hotel reservation fee will be refunded in full. All hotel rooms include a bath or shower. Prices quoted are per room, per night, including breakfast and VAT 23 %. Participants will make payment directly to the hotel upon check out

All cancellations must be done in writing to Confedent International: gpd2011@confedent.fi.

Visas, Invitations and Insurance

Finland requires a visa from persons travelling from some countries. The conference organizer is prepared to send official invitations to the delegates to be attached with the visa application. (The invitation will be sent only after the organizers have received full payment for the registration fees.)

The handling time of the visa application may take up to two months. Please note that a health insurance (30,000 Euros) must be valid and cover hospital and medical expenses. Proof of this must be presented at passport control upon arrival to Finland. All participants are requested to make their own arrangements concerning insurance.

For further information on Ministry for Foreign Affairs of Finland, please visit http://formin.finland.fi.

VAT refunds: visit www.vero.fi/english for more information on value added tax in Finland.

Liability

The Conference Organization and the Conference Registration Office acts as an agent only in securing hotels, transport and travel services and shall in no event be liable for acts or omissions in the event of injury, damage, loss, accident, delay and irregularity of any kind what so ever during arrangements organized through contractors or the employees of such contractors in carrying out services.

Hotel and transportation services are subject to the terms and conditions under which they are offered to the public in general. The Conference Organization reserves the right to make changes where deemed necessary, without prior notice to parties concerned. All disputes are subject to Finnish law.

Conference language

The official language of the conference is English. Interpretation / translation into other languages, if provided, will be announced by the organizers.

Dress Code

Dress code will be informal for all conference sessions and most evening functions. Conference dinner is formal. Comfortable shoes and warmer clothing are recommended for the Farewell Party!

Note: The conference and the social program will be photographed and/or videotaped. The organizer has the right to use these photos and videos publicly for different marketing and promotion purposes, e.g. in glass industry magazines, GPD website, etc.

Tampere Hall

www.tampere-talo.fi

Venue for the following activities:

Registration, Opening Ceremony, all Conference sessions, Get Together Party, Poster Exhibition, Glass Expo, Energy Efficiency and Solar Park

Venue for Workshops

please contact:

gpd2011@confedent.fi



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Conference Venues

Both venues are conveniently located within walking distance to the city centre and most of the conference hotels. Transportation will be arranged.

Address: Yliopistonkatu 55, Tampere

University of Tampere

Address: Pinni B, Kanslerinrinne 1, Tampere

Conference Secretariat

If you have any questions regarding registrations, payments and accommodation reservations,

CONFEDENT International Oy

Porkkalankatu 3, 00180 Helsinki, Finland

Tel: +358 9 5840 9350 Fax: +358 9 5840 9555



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Glass EXPO & Energy and Solar Park

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Workshops

Mr. Harri Laisi harri.laisi@gpd.fi | +358 50 464 8811

Glass Performance Days

P. O. Box 25, 33731 TAMPERE, FINLAND Tel +358 10 500 500 | Fax +358 10 500 6180

GPD China

www.gpd.fi/china

2012



www.gpd.fi/registration

Please make your hotel reservation with the conference registration!

If you have any questions regarding registrations, payments and accommodation reservations, please contact:

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October 23-26, 2012

GlassBuild

September 12-14, 2011



May 11-14, 2011







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