

Glass Processing Days 2003 vom 15.-18. Juni:

# Globaler Glaskongreß feiert Jubiläum

Innerhalb von zehn Jahren haben sich die Glass Processing Days (GPD) zu einer der weltweit wichtigsten Veranstaltungen der Glasbranche entwickelt, und das ist kein Zufall. Denn den Veranstaltern ist es gelungen hochkarätige Vorträge mit einem kommunikativen Rahmenprogramm zu verknüpfen. In diesem Jahr erwartet die rund 1000 Teilnehmer (2001: 800) ein Programm mit über 260 Präsentationen.

„Wir freuen uns, auch in diesem Jahr wieder die Entscheider der weltweiten Glasbranche in Finnland begrüßen zu können“, stellt Jorma Vitkala, Chairman der Veranstaltung, nicht ohne Stolz fest. Und die Zahlen geben ihm Recht: etwa 70 Prozent der Teilnehmer sind Firmenbesitzer, Direktoren oder in einer leitenden Funktion tätig.

Mit etwa 150 Anmeldungen stellt Deutschland das größte Teilnehmer-Kontingent. Daneben belegt die große Zahl der deutschen Redner, daß der Innovations- und Wissensstand hierzulande zur Weltspitze zählt.

Wie schon in den Jahren zuvor findet der GPD-Kongreß in Tampere statt, und zwar vom 15. bis 18 Juni 2003. Im Vorfeld der GPD wird es erneut die sogenannten Short Courses geben, die sich vertiefender mit ausgewählten Themen beschäftigen (13. bis 15. Juni). Auch diesmal werden wieder alle Vorträge in englischer Sprache gehalten.

Informationen zum Kongreß und zu den Short Courses können von der GPD-Homepage unter: [www.glassprocessingdays.com](http://www.glassprocessingdays.com) abgerufen werden.

Für weitere Anfragen steht Frau Sanna Turkki unter Tel. (0 03 58) 33 72 32 25 oder [sanna.turkki@tamglass.com](mailto:sanna.turkki@tamglass.com) zur Verfügung.

GLASS PROCESSING DAYS 2003 - FINAL PROGRAMME	
SUNDAY AFTERNOON JUNE 15th 2003	
<b>OPENING PROGRAM:</b>	
15:00 Opening program	16:15 The Use of Mineral Glass Glazings in the Automotive Industry Mr. Guy Luszcz, Director of Vehicle Materials and Engineering Division, PSA Peugeot Citroën
15:30 Opening Address: Industry's Latest Trends and the Future Challenges of Glass Compared to Other Competing Materials Mr. Jacques Achenbach, Senior Vice President of Composites de Saint-Gobain, Chairman and CEO of Saint-Gobain Vitre and Managing Director of the Flat Glass Division of La Compagnie de Saint-Gobain	16:45 Coffee
16:00 Music	17:15 GPD Award and Music
	17:45 Nanotechnology and Self-Cleaning Glass - New Opportunities to the Glass Industry Professor Alina Fajonova, Ph.D., Department of Applied Chemistry, Faculty of Engineering, The University of Tulcea
Venue: Tampere, Finland. 73.30 Get Together Party	

MONDAY JUNE 16th 2003		
Glass Processing	Glass Architecture	Automotive - Design
<b>Tempered Glass Shapes in France</b>	<b>Current Trends in Glass Exterior Cladding and Interior Use</b>	<b>Body Design, Construction and Glazing</b>
Chairman: Mr. Francis Serruys, Saint-Gobain Glass Exprim & Mr. Stephan Rica, GGF	Chairman: Mr. James Carpenter, James Carpenter Design Associates & Mr. Graham Dodd, Cive Arup & Partners Facade Engineering & Mr. Lesse Walters, The Finnish Association of Architects	Chairman: Mr. Michael Robinson, Fiat Auto S.p.A. & Mr. Vincent I. Henry, Henry Technology Solutions L.L.C. & Mr. Karl-Josef Offsch, Saint-Gobain Sekurit
09:00 <b>Invited Speaker:</b> The Properties of Glass and Their Influence on Construction Mr. Dieter Beklow, SIGGf	Case Study: Deutsche Post Tower, Bonn	09:00 Stay Cool with Advanced Automotive Glazings Dr. Robert Farrington, National Renewable Energy Laboratory
09:30 <b>Invited Speaker:</b> Manufacturing Constraints Testing, Performance Characteristics, etc. Dr. Leon Jacob, Jacob & Associates Pty Ltd.	09:00 <b>Introduction:</b> The Transparent High-Rise Building of Deutsche Post in Bonn Mr. Helmut John, MurphyJohn Architects & Prof. Dr. Werner Sobek, Werner Sobek Ingenieure GmbH & Co. KG	09:30 <b>Invited Speaker:</b> Alternative Glazing Options, Plastic Glazing Mrs. Estelle Eves, PSA Peugeot Citroën
10:00 <b>Curved Architectural Tempered Glass: A Discussion on the Emerging International Standards &amp; Specifications</b> Mr. Thomas E. Nise, Glasstech Inc.	10:10 <b>Breathing in the Wind - Energy, Comfort and Ventilation Concept for the Post Tower, Bonn</b> Prof. Matthias Schuler, Transvalor Energietechnik GmbH	10:00 <b>Invited Speaker:</b> Walls Without Barriers - The Intrinsic Porosity of Glass Mr. Michael Robinson, Fiat Auto S.p.A.
10:30 Coffee	10:30 Coffee	10:30 Coffee
11:00 <b>Curved and Tempered Glass - Demand, Challenges and Opportunity for the Market Driven Technology</b> Mr. Murali Subrah, Tamglass Ltd. Oy	11:00 <b>Solving Detail Problems of Glass Structures of the Post Tower in Bonn</b> Dr. Wolfgang Sundmann, Werner Sobek Ingenieure GmbH & Co. KG	11:00 <b>Large Area Rooflights - New Opportunities for Laminated Glass</b> Dr. Philip Carkill, Pilkington Automotive
11:30 <b>Handling and Tempering of Post Temperable Off-Line Coated Glass</b> Mr. Francis Serruys, Saint-Gobain Glass Exprim	11:20 <b>Headquarters of Deutsche Post Bonn: Building Envelope</b> Dr. Fritz Gartner, Josef Gartner GmbH	11:30 <b>Electrochromic Automotive Sunroofs</b> Mr. Jean-Christophe Girard, Saint-Gobain Sekurit
11:50 <b>Technology for Low-E Tempering</b> Mr. Eero Jalkanen, Tamglass Ltd. Oy	11:40 <b>Deutsche Post Entry Tower: Merging Landscape and Sky</b> Mr. James Carpenter, Carpenter Design Associates	12:00 Lunch
12:10 Lunch	12:00 <b>The Deutsche Post Head Office - A Challenge for Silicone Sealants</b> Dr. Werner Wagnat, Wacker-Chemie GmbH	13:30 <b>Plenary Speaker:</b> Developments in Automobile Window Design Mr. Michel Jardin, Design Director, Renault
<b>Fin Processing of Tempered Glass</b>	12:20 Lunch	14:00 <b>Invited Speaker:</b> Innovative Glass Applications in Specialty Vehicles Mr. Donald W. Ablason, General Motors Corporation
Chairman: Mr. Stefano Bovolenti, Z Bovolenti S.p.A. & Mr. M. Laponen, Tamglass Ltd. Oy	13:30 <b>Plenary Speaker:</b> Developments in Automobile Window Design Mr. Michel Jardin, Design Director, Renault	14:30 <b>Smart Materials on Glass - Present and Future</b> Mr. Allan Craig, DuPont (UK) Ltd
14:00 <b>Invited Speaker:</b> Challenge of Development and Potential for Glass Processing by Laser Technology Dr. Christoph Hermanns, Schott Spezialglas	14:00 <b>Transparency and Immateriality</b> Mr. Juhani Pullonmaa	14:50 <b>The Challenge of New Model Introduction</b> Mr. Charles Mason, Pilkington Automotive
14:30 <b>Solid-State Laser for Cutting Flat Glass Contours</b> Mr. Oliver Haupt, Laser Zentrum Hannover e.V	14:45 <b>Invited Speaker:</b> Corporate Architecture Prof. Dr. Gunter Herr, Herr Architekten Ingenieure	15:10 <b>Numerical Simulation for the Thermal Comfort of Car Occupants</b> Dr. Toru Takabayashi, Asahi Glass Co., Ltd.
15:00 <b>The Strength of Glass, Effect of Edge Quality</b> Mr. Frederic A. Veer, Delft University of Technology	15:30 Coffee	15:30 Coffee
15:30 Coffee	16:00 <b>Pushing The Boundaries - The Latest Projects from Foster and Partners and the University of Stuttgart</b> Mr. Stefan Bekling, Foster and Partner	16:00 <b>Multifunctional Automotive Glazing - Examples and Trends</b> Mr. Andrew Leupold, DaimlerChrysler
16:00 <b>New Possibilities of Executions on the Last Generation CN Machines and Key Variables for the Production Costs Reduction</b> Mr. Ivan Ferrari, Z.Bovolenti S.p.A.	16:40 <b>Expanding Bomb Blast Protection for Architectural Glass</b> Dr. Stephen Berneise, E.I. DuPont Nemours & Company Inc.	16:30 <b>Relationship Between Glazing and Assisted Electronics Visibility in Vehicles</b> Dr. Giovanni Moriké, MG Consult
16:30 <b>General Application on Architectural Glass and Their Decoration of Graphic Artworks and Different Kind of Functional Applications, Today</b> Ms. Monika Spring, Sefar Inc.	17:00 <b>From Material to Architecture: Recent Architectural Opportunities Achieved Thanks to Improved Performance of Glass</b> Dr. Franca Modica, Università Degli Studi de Genova	
17:30 - 19:30 Dinner & Entertainment		
Venue: Tampere, Finland. 73.30 City Reception 18:00 - 21:00 VIP Dinner - Corporate Members and Press		



PLENARY SPEAKERS				
Monday June 16th 2003: Developments in Automotive Window Design		Tuesday June 17th 2003: Freeform Glass Structures		Wednesday June 18th 2003: World Record in Coated Glass
Mr. Michel Jardin, Director, Advanced Design Interior-Exterior & Concept Car, Renault		Dr. Hans Schöber, Schöber Bergemann und Partner		Mr. Erich Stöck, CEO and President, Glas Stöck Holding AG & Eungles Veneta GmbH
<b>MONDAY JUNE 16th 2003</b>				
<b>TUESDAY JUNE 17th 2003</b>				
<b>General</b>	<b>Glass Architecture</b>	<b>Glass Innovations</b>	<b>IG-Glass Processing</b>	<b>Automotive - Processing</b>
<b>Keynote: Building of Glass Processing and Behaviour</b>	<b>Safety Glass in High-Rise Curtain Wall Structures</b>	<b>New Technical Developments and Applications</b>	<b>Insulated Glass (IG) Units</b>	<b>Laminated Windscreen, Sideites and Lightweight Glazing</b>
Chairman: Prof. Dominique Luchegrues, I.A.M.I.H. & Prof. Risto Korhonen, Tampere University of Technology	Chairman: Dr. Leon Jacob, Jacob & Associates Pty Ltd & Mr. Keith Boswell, Skidmore Owings Merrill	Chairman: Dr. Norbert Wink, Pilkington Deutschland AG & Mr. Frank Rübbers, Saint-Gobain Glass	Chairman: Dr. Manfred Pöbster, Herbol Tauson GmbH Heidelberg & Mr. Tapio Heiskanen, Olenach Oy & Mr. Helmut Hohenstein, IF Rosenheim	Chairman: Dr. Douglas Keir, DuPont (UK) Ltd. & Mr. Michael van Busselt, Sulake Europe SA/NV & Dr. Alan Woodward, Pilkington Automotive
09:00 <b>Keynote Speaker:</b> Numerical Modelling of Fabrication of Automotive and Television Glass Dr. Nae Khalil, Pacific Northwest National Laboratory	09:00 <b>Keynote Speaker:</b> Sustainability and Safety in High-Rise Curtain Wall Glass Mr. Mike Flinn, Pw, Cobb & Freed - Architects	09:00 <b>Invited Speaker:</b> Photocatalytic Coatings for Self-Cleaning Glass Dr. Kevin D. Sankaran, Pilkington Technology Centre	09:00 <b>Invited Speaker:</b> Liquid Polysulphides-Major Base Polymers for IG Sealants Dr. Dieter Langs, Thorglar Chemicals GmbH Co. KG an Alcoa Nobel Company	09:00 <b>Keynote Speaker:</b> Optical Properties of Automotive Glazings - Design and Feasibility Limitations Dr. Manfred-Andreas Beack, Volkswagen AG
09:30 <b>Invited Speaker:</b> Heat Transfer, Viscous and Viscoelastic Effects in Glass Forming Prof. Simon Ballner, Cleveland State University	09:30 <b>Architectural Criteria for Glazing Selection</b> Mr. Keith Boswell, Skidmore Owings Merrill	09:30 <b>Invited Speaker:</b> Self-Cleaning Coatings for Architectural Applications Mr. Philippe Armond, Saint-Gobain Glass	09:30 <b>New RILEM Durability Test Method for Curtain-Wall Sealants</b> Dr. Andreas Wyl, Dew-Corning S.r.l.	09:30 <b>Laminated Automotive Sideites Increasing Role in Automotive Safety Systems</b> Mr. Michael L. Sanders, DuPont (USA) Ltd
10:00 <b>Transmitted Optical Quality in Automotive Glass - Distortion Caused by the Forming Process</b> Mr. Alejandro Basso, Glasstech Inc.	10:00 <b>Understanding the Versatility of Laminated Safety Glass as a Glazing Product of the Future</b> Dr. Leon Jacob, Jacob & Associates Pty Ltd	10:00 <b>Durable Self-Cleaning Coatings in Optical Quality</b> Dr. Rolf Classen, SulSys Surface Nanotechnologies GmbH	09:50 <b>Experience with EN 12799 - A Critical Review of the Practicalities</b> Mr. Harald Köhler, Chemetall Glass	10:00 <b>Front Glazing for Rail Vehicles...</b> Mr. Albert Stöckmann, Glas Stöck Holding AG p. A.
10:30 <b>Coffee</b>	10:30 <b>Coffee</b>	10:30 <b>Coffee</b>	10:10 <b>Quality Assurance in the Insulating Glass Production - A Critical Summary</b> Mr. Helmut Brock, Herbol Tauson GmbH	10:30 <b>Coffee</b>
11:00 <b>Monolithic Calculation Model for the Cur of Plane Bonding of Laminated Glass Beams</b> Mr. Jan Balic, Ghent University	11:00 <b>A Cladding Designer's Perspective on the Use of Safety Glass</b> Mr. John Walker, Norman	11:00 <b>SiO<sub>2</sub> - Coatings from Inorganic Soles: A New Approach to Hydrophobic and Photocatalytically Active Glasses</b> Dr. Martina Hilber, Chemetall GmbH	10:30 <b>Coffee</b>	11:00 <b>The Effect of an Acoustical Windscreen on the Sound Quality in a Car</b> Dr. Rüdiger Haas, Sulake Inc.
11:30 <b>On the Design of Mechanical Joints in Tempered Glass Structures</b> Prof. Laurent Doubilette, Université de Caen	11:30 <b>Invited Speaker:</b> An International Perspective of Using Safety Glass in High-Rise Buildings Mr. Lucie Mahasni, Femosteel	11:20 <b>Learning from Lotus Flower - Self-Cleaning Coatings on Glass</b> Mr. Martin Baumann, Ferro Corp.	11:00 <b>Thermoseal Spacer (TSS) Technology - New Generations of Dual Seal IG Systems</b> Mr. Conrad Richter, Edgetech-IG Inc.	11:30 <b>Optical Characteristics of Laminated Sideites</b> Dr. Alan C. Woodward, Pilkington Automotive
11:40 <b>Calculation of Point Bearings for Glass as Load-bearing Element in Structural Engineering</b> Mr. Barbara Seibert, Ingenieurbüro Dr. Seibert, Büro für Bauwesen	11:40 <b>Lock - No Frame!</b> Mr. John Coburn, Hansen Glass Processing Ltd	11:40 <b>Study and Recommendations on the Use of Sealants with Self-Cleaning Glasses</b> Mr. Jean-Paul Houvener, Dew-Corning	11:20 <b>How Long Can Spacer Bars - Filled with Desiccant - Be Exposed to Ambient Air?</b> Dr. Horst Thumme, Graco GmbH & Co. KG	12:00 <b>Lunch</b>
12:00 <b>Lunch</b>	12:00 <b>Lunch</b>	12:00 <b>Lunch</b>	11:40 <b>A Study on Durability of Insulating Glass Units for Frameless Glazing Systems</b> Mr. Hirotsuna Okubo, Asahi Glass Co., Ltd.	13:30 <b>Plenary Speaker:</b> Freeform Glass Structures Dr. Hans Schöber, Schöber Bergemann und Partner
13:30 <b>Plenary Speaker:</b> Developments in Automotive Window Design Mr. Michel Jardin, Design Director, Renault	13:30 <b>Plenary Speaker:</b> Freeform Glass Structures Dr. Hans Schöber, Schöber Bergemann und Partner	13:30 <b>Plenary Speaker:</b> Freeform Glass Structures Dr. Hans Schöber, Schöber Bergemann und Partner	12:00 <b>Field Performance Driven Durability Assessments</b> Dr. Richard Hoge, Aspen Research Corp.	14:00 <b>Spectrally Tuned Emissivity Surfaces for Optical Glass Heating and Bonding</b> Mr. George Neuman, Guardian Industries
<b>Robot Substrate / IS-Test</b>	14:00 <b>Advanced Glass Facades in High-Rise Curtain Walls</b> Mr. Stephen Selowitz, Ernest Orlando Lawrence Berkeley National Laboratory	14:00 <b>Coatings with Nano-Particles for Windows and Facades</b> Dr. Helmut Hohenstein, IF Rosenheim	12:20 <b>Lunch</b>	14:30 <b>Heated Coated Windshield: The Future of High Performance Ite Coating</b> Mr. Etienne Dugand, Sulake/Clearcoat
Chairman: Mr. Edwin Bullen, GDFV & Mr. John E. Waldron, GDFV	14:30 <b>Guidelines for the Selection of Solar Control Reflective Glasses in Warm and Hot Climates</b> Mr. Jerry Dawling, Emronex Glass	14:30 <b>Low Cost Industrial Manufacturing of a Single Layer Antireflective Surface on Sheet Glass</b> Mr. Göran Olsson, Managing Director, Sunnet Technology A/S	13:30 <b>Plenary Speaker:</b> Freeform Glass Structures Dr. Hans Schöber, Schöber Bergemann und Partner	15:00 <b>Heated Glazing for Vehicles</b> Mr. Mike Greenall, Pilkington Automotive
14:00 <b>Invited Speaker:</b> Safety of Heat Soaked Thermally Toughened Glass: How Really Must the Standard Conditions... Dr. Andreas Kasper, Saint-Gobain Glass Deutschland GmbH	14:50 <b>Aspects of Safety Glass Behaviour in Facaded Applications</b> Prof. Abhi Rai	14:50 <b>Application of Microstructured Surfaces in Architectural Glazings</b> Dr. Andreas Gombert, Fraunhofer Institute For Solar Energy Systems	14:00 <b>Vacuum Glazing for Transparent Thermal Insulating Material</b> Mr. Chamsi Azam, Nippon Sheet Glass	15:30 <b>Coffee</b>
14:30 <b>Heat Transfer Analysis of Heat Soak Furnace</b> Prof. Risto Korhonen, Tampere University of Technology	15:10 <b>Energy Efficient Safety Glass in Buildings</b> Mr. Neal Stokes, Pilkington (Australia) Ltd.	15:10 <b>Low Cost Industrial Manufacturing of a Single Layer Antireflective Surface on Sheet Glass</b> Mr. Frank Bawerje, Pilkington Special Glass Ltd.	14:30 <b>Single-Step Manufacture of Vacuum Glazing</b> Dr. Helmut Ng, University of Sydney	16:00 <b>Future Possibility of High Performance PVB Interlayer</b> Sakurai Chemical Co., Ltd.
14:50 <b>Study on the Fracture Pattern of Heat Strengthened Glass</b> Mr. Yumiko Hayashi, Nippon Sheet Glass Co., Ltd.	15:30 <b>Coffee</b>	15:30 <b>Coffee</b>	15:00 <b>Planning and Simulation of IG Production Processes</b> Mr. Christian Rüdiger, Systemic Glass / Leibniz Technology	16:30 <b>DC, RF and Electrical Properties of Conductive Transparent Thin Film Coatings on Flexible Substrates for Solar Control</b> Mr. Michael East, Southwall Technologies
15:10 <b>A Consultants Toolbox for Investigating Nickel Sulphide Failures in Toughened Glass</b> Dr. Richard Harris, Sandberg	16:00 <b>Progress on Shifting Paradigms on Design of Laminated Glass for Buildings</b> Mr. Phillip Davies, DuPont (Australia) Ltd.	16:00 <b>Customized Index Optical Films by Pulsed Dual-Magnetron Co-Sputtering</b> Mr. David Christie, Advanced Energy Industries, Inc.	15:30 <b>Coffee</b>	16:00 <b>Insulating Units Exposed to Wind and Weather Load Sharing and Internal Loads</b> Prof. Dr. Franz Feldmeier, University of Applied Science, Rosenheim
15:30 <b>Coffee</b>	16:20 <b>New Developments in Predicting the Strength of Glass After 20 or More Years of Use in Buildings</b> Dr. Ignatius Calderone, Cornell Man MacDonald	16:20 <b>Advanced Sputter Coating Processes for Glass: Application of Plasma Emission Control to Cylindrical Magnetrons</b> Mr. Steven Hodel, VON ARDENNE Coating Technology	16:00 <b>Insulating Units Exposed to Wind and Weather Load Sharing and Internal Loads</b> Prof. Dr. Franz Feldmeier, University of Applied Science, Rosenheim	16:20 <b>European Standard for Insulating Glass Units (pr-EN 12799 Series)</b> Dr. Peter Ungewill, Ferat S.p.A.
16:00 <b>An Owners and Tenants Perspective on Spontaneous Failures of Toughened Glass</b> Dr. Richard Harris, Sandberg	16:40 <b>An Alternative Approach to Preventing Falling Glass in Point-Supported Glazing</b> Mr. Steve Dowdle, Hyder Consulting	16:40 <b>New Coatings in the Field of Architectural Glazing Applications</b> Dr. Harald Hagenstein, Insepro Entschlösselung & Beratung	16:40 <b>Comparative Analysis of IGU Spacers Using a Guarded Hot Box</b> Mr. Enrico Magnotti, Suezane Spierimonte Dal Veto	16:40 <b>Comparative Analysis of IGU Spacers Using a Guarded Hot Box</b> Mr. Enrico Magnotti, Suezane Spierimonte Dal Veto
16:40 <b>Investigation on the Possible Causes of Failures of Tempered Glass Using Energy Dispersive X-ray</b> Mr. Saito Kazim, Cosmos Technology Group				



For full abstracts, registration and more information, please visit [www.glassprocessingdays.com](http://www.glassprocessingdays.com)

To view abstracts and get more information on conference and registration, please visit us through [www.glassfiles.com](http://www.glassfiles.com)  
The organiser reserves rights to all program changes and limit the participation.



WEDNESDAY JUNE 18th 2003

Glass Innovations	Glass Architecture	General	General	Automotive - Processing
<p><b>09:00 Surface Engineering of Glazing Materials and Structures Using Plasma Processes</b> Mr. André Anders, Lawrence Berkeley National Laboratory</p> <p><b>09:30 Colors in Reflection for Solar Control Coated Windows</b> Dr. Carole Boudet, Saint-Gobain Sekurit</p> <p><b>09:50 Combining Optical Transmittance and Enhanced Fracture Toughness in Fiber Reinforced Glass</b> Dr. Peter Fehling, Technische Univ. Braunschweig</p> <p><b>10:10 New Properties for Glass Surfaces Based on Chemical...</b> Mr. Michael Jung-Farster, Nanogate Tech.</p> <p><b>10:30 Coffee</b></p>	<p><b>09:00 Limited Speaker: Facodes of the Future</b> Dr. Winfried Heusler, Schöco International KG</p> <p><b>09:30 The Development of Double Skin Facode Systems</b> Dr. Giulio Anselmi, Studio Alinari s.r.l.</p> <p><b>10:00 From Double Windows to Double Building Envelopes</b> Mr. Andrea Compagnoni, Fassaden und Beratung</p> <p><b>10:30 Coffee</b></p> <p><b>11:00 Suitability of Dual Skin Glass in Hot Climates</b> Dr. Essam Assem, Kuwait Institute for Scientific Research</p> <p><b>11:20 Double Skin Glass Façade - Design Method of Wind Pressure</b> Mr. Hisaru Ishida, Asahi Glass Co., Ltd.</p> <p><b>11:40 Building Integration of Multi-Functional Glazed Facades - Potential and Risk Assessment</b> Mr. Tuomo Ojanen, VTT Building and Transport</p> <p><b>12:00 Lunch</b></p> <p><b>13:30 Plenary Speaker: World Record in Coated Glass</b> Mr. Erich Trösch, CEO &amp; President, Euroglas Vertriebs GmbH &amp; Glas Trösch Holding AG</p> <p><b>14:00 Structural Use of Glass in Modern Façade Design</b> Dr. Wilfried Lauth, Whitty Bird &amp; Partners</p> <p><b>14:30 Shear-Strength of Glass Panel Elements in Combination with Timber Frame Constructions</b> Mr. Peter Nadermaier, FH-Rosenheim</p> <p><b>14:50 The Development of Single-Direction Cable-Supported Glass Walls</b> Mr. Timothy Macfarlane, Dewhurst Macfarlane and Partners</p> <p><b>15:10 Structural Use of Glass in Hybrid Elements: Steel-Glass-Beams, Glass-GFRP-Plates</b> Mr. Frank Wellerhoff, University of Aachen</p> <p><b>15:30 Coffee</b></p> <p><b>16:00 Design of Facades Made of Point Fixed Glazing Systems...</b> Dr. Gerald Siebert, Ingenieurbüro Dr. Siebert, Büro für Bauwesen</p> <p><b>16:20 Laminated Glass Tubes as Structural Elements</b> Dr. Fritz-Dieter Dornatz, Schott-Rohglas GmbH</p> <p><b>16:40 Layered Tubular Glass Columns</b> Mr. Frederic A. Veer, Dalh University of Technology</p>	<p><b>09:00 Glass Association of North America - Addressing North-American Market Needs</b> Mr. Greg Corney, Glass Association of North America</p> <p><b>09:30 Developing the Decision Maker - How Marketing Can Encourage Growth in the Use of Glass</b> Mr. Stephen Lipscombe, Pilkington Plc</p> <p><b>10:00 A Global Outlook for Large Area Glass Coating</b> Mr. Steven Nadel, VON ARDENNE Coating Technology</p> <p><b>10:30 Coffee</b></p> <p><b>11:00 Architectural and Automotive Glass Market in Taiwan and China</b> Mr. RFLin, Taiwan Glass Ind. Corp.</p> <p><b>11:15 Market and Trends in North-American Window Business</b> Mr. Kurt Heikilla, Andersen Corporation</p> <p><b>11:30 Glass Opportunities in Emerging Markets</b> Mr. Garth Hesley, International Finance Corporation (IFC)</p> <p><b>11:45 Review of the 20th Century and Prospect of the 21st Century in regard to China's Flat Glass and...</b> Prof. Mo Wanyi, The Chinese Ceramic Holding AG</p> <p><b>12:00 Lunch</b></p> <p><b>13:30 Plenary Speaker: World Record in Coated Glass</b> Mr. Erich Trösch, CEO &amp; President, Euroglas Vertriebs GmbH &amp; Glas Trösch Holding AG</p>	<p><b>09:00 Strength of Float Glass - Review of the CEN Technical Report</b> Mr. John Colvin, Hansen Glass Processing Ltd.</p> <p><b>09:30 Fundamental Properties of Glass Strength Design for Wind Load</b> Mr. Masashi Kikuta, Nippon Sheet Glass Co., Ltd.</p> <p><b>09:50 Strength of Bent Glass and its Applications in Architecture</b> Mr. Iris Mariotti, Technische Universität München</p> <p><b>10:10 Curved Glass - a Review of the Work of ISO TC 160 SC1 WG5</b> Mr. Thomas E. Nae, Glasstech Inc.</p> <p><b>10:30 Coffee</b></p> <p><b>11:00 Security Glass Test Methods - Review of the Work of ISO TC 160 SC2 WG7</b> Mr. John Turnbull</p> <p><b>11:30 ISO Safety Glass Impact Test Developments</b> Mr. Stephen Ross, GGF</p> <p><b>12:00 Lunch</b></p> <p><b>13:30 Plenary Speaker: World Record in Coated Glass</b> Mr. Erich Trösch, CEO &amp; President, Euroglas Vertriebs GmbH &amp; Glas Trösch Holding AG</p> <p><b>14:00 Keynote Speaker: Europe - Now That MEN's Are Here: CE-Marking and its Future</b> Mr. John B. Waldron, Pilkington Primary Products Europe</p> <p><b>14:30 The View of the CEN Standards - Now That I Work in Export</b> Mr. Francis Semys, Saint-Gobain Glass Epruver</p> <p><b>14:50 New Standard on Laminated Glass for Buildings</b> Mr. Alexander Chesnokov, Glass Research Institute</p> <p><b>15:10 The European Standards for Windows, Doors and Facades and their Effects on the Glass Industry</b> Mr. Ulrich Seibenth, R-Rosenheim</p>	<p><b>09:00 Keynote Speaker: Pre-Processing and Heat Treatment</b> Chairman: Mr. Gerhard Türker, Ferro GmbH &amp; Mr. Makoto "Rocky" Iwase, Asahi Glass Co., Ltd.</p> <p><b>09:30 Evolution of High Performance Environmentally Friendly Automotive Glass-Ceramic Enamels</b> Dr. George Sakouka, Ferro Corp.</p> <p><b>10:00 Separating and Structuring of Brittle Materials by the Use of Laser Radiation</b> Mr. Silvio Georgi, Jenoptik Automatisierungstechnik GmbH</p> <p><b>10:30 Coffee</b></p> <p><b>11:00 Effect of Coolants on Edge Quality of Float Glass</b> Dr. Michael Emmonds, Aachener Chemische Werke</p> <p><b>11:20 Definition and Classification of a Quality Measure for Grinded Edges</b> Mr. Hans Oßler, Bystronic Maschinen AG</p> <p><b>11:40 New Methods and Technologies for the Production of Screen Printed Automotive Glass</b> Mr. Christian Schweickert, Thermo GmbH &amp; Co. KG</p> <p><b>12:00 Screen Printing Application on Automotive Glass</b> Mr. Roland Droch, Sefar Inc. Screen Printing Division</p> <p><b>12:20 Lunch</b></p> <p><b>13:30 Plenary Speaker: World Record in Coated Glass</b> Mr. Erich Trösch, CEO &amp; President, Euroglas Vertriebs GmbH &amp; Glas Trösch Holding AG</p>
<p><b>Glass Processing</b></p> <p><b>The Laminated Glass Properties</b></p> <p>Chairman: Dr. Gerard Savineau, Schott Europe SA/NV &amp; Mr. Johan Morfelmans, HT Trisolat AG</p> <p><b>11:00 Keynote Speaker: Performance Criteria and Tests for Naval Glass Constructions</b> Mr. Antony Smith, Cle Arup Façade Eng.</p> <p><b>11:30 Flexural Stiffness of Laminated Glass Panels Under...</b> Dr. Pat O'Hare, Schott Inc.</p> <p><b>11:50 Remaining Structural Capacity of Broken Laminated Safety Glass</b> Mr. Alexander Kott, Institute of Structural Engineering</p> <p><b>12:10 Lunch</b></p> <p><b>13:30 Plenary Speaker: World Record in Coated Glass</b> Mr. Erich Trösch, CEO &amp; President, Euroglas Vertriebs GmbH &amp; Glas Trösch Holding AG</p> <p><b>14:00 The Influence of Various Support Conditions on the Structural</b> Mr. Holger Grill, Technical Univ. Munich</p> <p><b>14:20 Structural Deformation of Architectural Laminated Glass Panel</b> Dr. Hong-Bo Wang, Cantor Securik UK Ltd. (WSP Group)</p> <p><b>14:40 Safe Postbreakage Behaviour of Point Fixed Glazing Systems...</b> Mr. Jean-Claurent Hugues, St-Gobain-Glas</p> <p><b>15:00 Hybrid Laminations for Structural Glass</b> Mr. André Torres Chaves, D-Design Consulting</p> <p><b>15:20 Discussion on speeches 1-7</b></p> <p><b>15:30 Coffee</b></p> <p><b>16:00 Blast Hazard Mitigation Through the Use of Performance...</b> Mr. David Madden, Arup Security Consult</p> <p><b>16:20 Electrochromic Glazing with an Ion-Conducting PVB Interlayer</b> Dr. Holger Stenzel, HT Trisolat AG</p> <p><b>16:40 Delamination Issues with Laminated Glass - Causes and Prevention</b> Mr. Phillip Davies, DuPont (Australia)</p>	<p><b>11:15 Market and Trends in North-American Window Business</b> Mr. Kurt Heikilla, Andersen Corporation</p> <p><b>11:30 Glass Opportunities in Emerging Markets</b> Mr. Garth Hesley, International Finance Corporation (IFC)</p> <p><b>11:45 Review of the 20th Century and Prospect of the 21st Century in regard to China's Flat Glass and...</b> Prof. Mo Wanyi, The Chinese Ceramic Holding AG</p> <p><b>12:00 Lunch</b></p> <p><b>13:30 Plenary Speaker: World Record in Coated Glass</b> Mr. Erich Trösch, CEO &amp; President, Euroglas Vertriebs GmbH &amp; Glas Trösch Holding AG</p>	<p><b>Latin American</b></p> <p><b>Glass Industry in Latin America Today (in Spanish)</b></p> <p>Chairman: Mr. Mark Lucasse, Guanajuato Brazil &amp; Mr. Periti Salin, Temglas LM, Oy</p> <p><b>14:00 Keynote Speaker: Development and Future of the Latin American Glass Industry</b> Mr. Luis Galvão, Pilkington Brazil</p> <p><b>14:30 Shower Doors of Tempered Glass - A Case of Success in Brazil</b> Mr. Gilberto Ribeiro, Vidrobox</p> <p><b>15:00 The Use of Glass in Interior Architecture - Quality of Life and Wellness</b> Ms. Débora Aguiar, Debora Aguiar Arquitetas</p> <p><b>15:30 Coffee</b></p> <p><b>16:00 Breaking Paradigms in Patterned Glass Business</b> Mr. David Roquem Filho, UBV</p> <p><b>16:20 Glass Furniture Market in Brazil</b> Mr. Wilson Farhat Jr., Valeria</p> <p><b>16:40 Automotive Glass Industry in Latin America</b> Mr. Heitor Villaverde, Citra-PPG</p>	<p><b>Panel Discussion of the Use of Web in Glass Industry</b></p> <p><b>Wednesday Morning Session</b></p> <p>Chairman: Mr. Mika Nevalainen, Kym Corporation</p> <p><b>09:00 Introduction: MyGlaverbel.com: When Information Technology Turns Glass Products into Solutions</b> Mr. Serge Martin, Glaverbel - Business Development Europe</p> <p><b>09:30 - 10:30 Panel Discussion</b> Ms. Nicole Harris, National Glass Association of America; Mrs. Marianne Hohenschmitt, Messe Düsseldorf; Mr. Serge Martin, Glaverbel; Mr. Garry Miller, Pilkington; Mr. Ilka Pfeiff, Nomin Networks</p>	<p><b>Quality and Production Control</b></p> <p>Chairman: Dr. Klaus Freusser, MFA NRW &amp; Mr. Gerhard Teicher, Adion Opel AG</p> <p><b>14:00 Keynote Speaker: The Quality Crunch - Do We Meet the Consumers Needs?</b> Dr. Holger Schumacher, Saint-Gobain Sekurit Deutschland</p> <p><b>14:30 A New Way to Inspect Special Glass</b> Dr. Marc Rosenbaum, Alliance Optics</p> <p><b>15:00 Additional Channels for Online Float Inspection; Reflected Distortion and Tin Detection</b> Mr. Janine Nagel, Iara Glaze Vision</p> <p><b>15:30 Coffee</b></p> <p><b>16:00 Quality Assurance of Coated Glass</b> Mr. Mike Krenelbecker, LASOR AG</p> <p><b>16:20 Measuring and Controlling Glass Temperature with Infrared Thermometers</b> Mr. Vem Lappe, Iacon Inc.</p> <p><b>16:40 The New Automotive Glass Replacement Safety Standard</b> Mr. Delora Lay, The Automotive Glass Replacement Safety Standards Council (AORSS)</p>



For full abstracts, registration and more information, please visit [www.glassprocessingdays.com](http://www.glassprocessingdays.com)

17.00 - 18.00 Party & Glass Exhibitor

Wednesday Evening 19.30 - Thursday Morning Farewell Party



POSTERS MONDAY JUNE 16th WEDNESDAY 18th 2003

**Architectural Glass**

**Tempered Glass Shapes the Future**

**ESP (Engineered Stress Profile) Glass: a Novel Approach to Obtain Improved Mechanical...**  
Prof. Vincenzo M. Sglavo, Università Degli Studi Di Trento

**Spanning Structures in Glass**  
Mr. Frederic A. Vasez, Delft University of Technology

**Effect of Edge Quality on the Strength Obtained by Ion-Exchanging**  
Mr. Frederic A. Vasez, Delft University of Technology

**Glass as a Building Material**  
Dr. Karim Abou, University

**A Compact Scattered Light Polariscopes for Residual Stress Measurement in Glass Plates**  
Mr. Julien Anton, Te Tullio

**A New Method to Determine the Bending Strength of Curved Glass Panels**  
Mr. Rolf Muehlen, University of Aachen

**Closed-Loop Furnace Control Using Mass and Coating Measurement of Glass Entering...**  
Mr. Mark Abbott, University

**Tempered Profile Glass Sections**  
Mr. Frank Wallershoff, University of Aachen

**Technological and Structural Factors for Guaranteeing of Tempered Glass Elements...**  
Dr. Yuri Rudtschik, Institute for Problems of Strength

**Two Heating Methods, Single Heating Chamber**  
Mr. A.J.Nuutinen, Unglass Engineering Oy

**Measurement of Stresses and Optical Distortion for QC of Tempered Glass**  
Mr. Alex S. Reicher, Stepienoptic Technologies Inc.

**Pre-Processing of Tempered Glass**

**A New Approach to Measuring Distortion in Tempered Glass**  
Mr. Gerald Hendrickson, Ascent Research Corp.

**Goniophotometric and Photometric Characterization of Enamelled Glass Plates**  
Mr. Augustin Maccioni, Enas ad Term Srl

**New Automation Processes in CNC Work Centres**  
Mr. Cesare Ghidini, Tecnomat

**Current Trends for Glass Exterior Glazing and Interiors**

**Entrance Gateway for Serangoon Gardens Country Club in Singapore**  
Dr. A.T. Yeo, Cox International

**Creation of Aesthetics: Research and Case Histories of New Decorative Glass Trends and...**  
Mr. C. Anderson, E.I. Dupont Nemours & Company Inc.

**The Design, Construction and Validation of a Structural Glass Dome**  
Mr. Frederic A. Vasez, Delft University of Technology

**Glass Architecture, Beyond Mere Transparency**  
Mr. Frederic A. Vasez, Delft University of Technology

**"Marking Glass" - New Workshop Building for a College in Rheinbach**  
Mr. Juergen Marquardt, Marquardt Architekten

**House on Glass - Glass Pavilion in Rheinbach**  
Mr. Juergen Marquardt, Marquardt Architekten

**The Solar Light Pipe - A Solution to the Dark Hole Problem**  
Mr. Davidson Norris, Carpenter Norris Consulting

**Rapid Image Alterations in the Environments Below and Above the Land Surface**  
Mr. Mark Kilian-Wills, For Mark Kilian-Wills

**Ecological Benefits of Second Facades Made of Glass - Examples of Realised Projects**  
Dr. G. Siebert, Ingenieurbüro Dr. Siebert, Büro für Bauphysik

**Recent Developments in Transparent Architecture**  
Dr. Esat Olgun, University

**Glass Wall Construction System and their Influence on Daylight Quantity and Quality...**  
Dr. Esat Olgun, University

**Sustainable Use of Glass in Facades and Roofs**  
Mr. Ina Morawitz, Technische Universität München

**Cold Bent and Twisted Glass Panels in Architecture**  
Prof. Mich. Eckhout, Tu Delft / Netherlands

**Future Research on Technology for Fluid Building Designs**  
Prof. Mich. Eckhout, Tu Delft / Netherlands

**Structural Glass Experiments in Recent Buildings**  
Prof. Mich. Eckhout, Tu Delft / Netherlands  
**Transparent and Sustainable Buildings**  
Mr. Diana Avessio, WSP Environmental

**Usage of Cold Bent Glass Panes as an Approximation for Double-Curved Surfaces**  
Dr. Karol Völkers, Delft University of Technology

**Windowlight Research Project: Daylighting Design with the Housing Façade**  
Mr. Henkjes Opals, University of Oulu

**Glass and Fenestration Varying Daylighting Test Series in PASLINK Test Chamber**  
Mr. Henkjes Opals, University of Oulu

**Structural Glass Shells Using Adhesive Joints**  
Mr. Lucio Elomäki, Institut für Sachbau Konstruktion und Konstruktion

**Apple Retail Stores Feature Glass Staircase and Bridge: A Technical Review of Innovative...**  
Mr. James O'Callaghan, Dewhurst Macchabane and Partners

**New Technical Developments and Applications**

**Requirements for Enhanced Mid-Frequency Dual Magnetron Sputtering Process Stability**  
Mr. David Christie, Advanced Energy Industries, Inc.

**The Production of Annealed Double-Curved Glass on Concrete Moulds**  
Dr. Karol Völkers, Delft University of Technology

**Fire Resistance of Glass**  
Mr. Frederic A. Vasez, Delft University of Technology

**Running High on the Transition Curve is Not Difficult or Expensive**  
Mr. Douglas Polymount, Advanced Energy

**Minors: Silvers the Glass with the Up-to-Date Technology**  
Mr. Roberto Scuderi, Bovero

**New Perspectives in Glass Architecture: the Use of Glass in the Protection and Restoration of...**  
Mr. Stefano Lulati, University of Florence

**Fabrication of Light and Glass - Design and Application Possibilities of High-Strength Glass...**  
Dr. Thomas Schmidt, Schott Dussel AG

**The Usage of Explosion-Formed-Freely Double-Curved Steel Moulds For Annealing Glass**  
Dr. Karol Völkers, Delft University of Technology

**Integration Between Static and Dynamic Daylight Control Systems: Fixed Shadings and...**  
Prof. Franco Gugliemetti, University of Rome

**Glass Fibre Reinforced Plastics - How Can Silences Help**  
Dr. Sabine Gieseler, Degussa AG

**Fabrication and Characterization of Zinc Ferrite Photocatalytic Nanometer Films**  
Dr. Chengyi Wang, Institute for Glass and New Inorganic Materials

**Antireflective Coating on Glass for Solar Applications**  
Dr. Thomas A. Hoffman, Fibreg GmbH & Co. KG

**Diagnostic X-Ray Shielding**  
Mr. Pratik Bhanushri, Pilkington Specialglass Ltd.

**Manufacture of Decorative Glass of Float Lines**  
Dr. Alexander Zhornitskiy, General Director, Saratov Glass Institute

**The Laminated Glass Properties**

**An Innovative Approach to Bullet Resistant Glazing**  
Mr. Harald Kohler, Chemetall GmbH

**Deforming and Strength of Large Size Glass Laminated Plates Under Short Bending**  
Mr. Vasily Gogel, Institute for Problems of Strength

**The Use of Laminated Glass with Photovoltaic Elements**  
Mr. Ina Morawitz, Technische Universität München

**Carrying Capacity and Fracture of the Laminated Structure Elements from Annealed...**  
Dr. Yuri Rudtschik, Institute for Problems of Strength

**Toughness, Resiliency and Adhesion of PVB Interlayers with Regards to Impact Resistance**  
Mr. Jean-Claude Hugue, Saint-Gobain Glass

**Photovoltaic Modules and Encapsulation of Solar Cells**  
Dr. Bernhard Küll, HT-Toplast AG

**Practical Issues Affecting Laminated Glass**  
Mr. Stephen Torris, Buro Happold Façade Engineering

**Facade Technology**

**Integration of Windows and Ventilation by Smart Supply Air Windows**  
Mr. Jarmo Heimonen, VTT Building and Transport

**Innovative Glass Construction Enabled with the Right Chemical Cocktail**  
Mr. Axel H. Glascock, Dow Corning

**A Method of Evaluation for Thermal Stress in Monolithic Annealed Glass**  
Mr. A. William Lingnell, Lingnell Consulting Services

**Fixing of Glass Panes in Facades of Complex Geometry by Use of Twisted Profiles**  
Dr. Karol Völkers, Delft University of Technology

**Thermochromic Glazing for "Zero Net Energy" House**  
Mr. Chag Tomoch, TUFF

**A Complete System for the Industrial Photovoltaic-Modul Manufacture Used in...**  
Mr. Jens Wolfhaus, Chemetall GmbH

**Double-Glazed Units with Built-in Venetian Blinds - Failures Can Be Avoided**  
Mr. Robert Kruttschnitt, Danish Technological Institute

**The Effect of Curtain Wall Systems Design on Production Efficiency and Safety of Facades**  
Dr. Werner Wagner, Wacker-Chemie GmbH

**Composite Glass Beams, the Third Chapter**  
Mr. Frederic A. Vasez, Delft University of Technology

**New Transparent Glass Beams with Improved Safety Characteristics**  
Mr. Michal Polombo, Vetrostruttura S.r.l.

**Structural Use of Glass Beams**  
Mr. Rolf Muehlen, University of Aachen

**Glass Pavilion Rheinbach - Stability of Glass Columns**  
Mr. Frank Wallershoff, University of Aachen

**A Complete System for the Industrial Photovoltaic-Modul Manufacture Used in...**  
Mr. Michael Schwamb, Chemetall GmbH

**Buildings Wrapped in Intelligence**  
Mr. Klemens Limbs, K2S Architects SANA

**Automotive**

**Body Design, Construction and Glazing**

**Glass Panels Seen by an Automotive Roof System Supplier**  
Mr. Eric Sprunk, Inalfa Roof Systems

**Laminated Windscreen, Sidelites and Lightweight Glazing**

**Solar Control PVB Interlayer and Its Automotive Application**  
Mr. Terry Yoshida, Sekisui Chemical Co., Ltd

**Laminated Performance Results of Metal Free and Color Neutral Solar Reflecting Film**  
Mr. Jeffrey A. Bortcher, 3M Automotive Division

**The Thermally Expanded Microspheres Debonding Technology and ELV Recycling...**  
Dr. Giovanni Marini, De Bonding Int. (Leeds) (UK)

**Quality and Production Control**

**Advanced In-Line Inspection Applicable for Various Coatings**  
Mr. Janine Nagel, Ima Glass Vision

**Screenscan-Final**  
Mr. Janine Nagel, Ima Glass Vision

**The Laboratory System for Transmitted and Reflected Distortion of Float Glass**  
Mr. Janine Nagel, Ima Glass Vision

**Microtopographic and Defect Analysis in PVD Multilayered Coatings**  
Prof. Vasco Teixeira, University of Minho

**A Non-Destructive Evaluation Technique for Micro-Defect and Residual Stress Mapping in...**  
Mr. Manuel F. Costa, University of Minho

**Complete Supervision of Grinding Quality on Flat Glass Sheets**  
Mr. Peter Handrock, Omphikon GmbH

**Automated Measurement of Edge Stresses in Automotive Glass**  
Mr. Alex S. Reicher, Stepienoptic Technologies Inc.

**General**

**Standards and Regulations Worldwide**

**Experimental Study of Shot Bag Impactors for International Standardization**  
Mr. Subhita Chakrabarti, Asahi Glass Co., Ltd.

**Numerical Modelling of Glass Processing and Behaviour**

**Mathematical Methods of Glazing Designing**  
Mr. Stanislav Chernozukov, Moscow Engineering Physics Institute

**Analysis of the Static Behaviour of the Members in Glass-Covered Structures**  
Mr. Rocco Heilmann, Helsinki University of Technology

**The Underestimated Structural Role of Elastic Joints in Glass Beam Applications**  
Mr. Jan Telle, Ghent University

**Nickel Sulphide / HS-Test**

**Composition and Structure of NiS Inclusions in Float Glass, and Their Impact on the Heat...**  
Dr. Andreas Kasper, Saint-Gobain Glass Deutschland GmbH

**A Manufacturing Process of Tempered and Heat Strengthened Glass Without Spontaneous...**  
Mr. Hiroshi Kuski, Nippon Sheet Glass Co., Ltd.

**Fundamentals of Spontaneous Breakage Mechanisms Caused by Nickel Sulphide**  
Dr. Andreas Kasper, Saint-Gobain Glass Deutschland GmbH

**Glass Market and Trends**

**The Evolution of the Seismic Factor in European Windows**  
Mr. Sergio Rinaldi, Marmora University

**Use of Glass in Turkish Commercial Greenhouses**  
Mr. Ayte Dogaç, Mimar Sinan University

**Emphasizing the National Characteristic in Contemporary Glass Design in Egypt**  
Dr. Ess El-Din Abd Elaziz Hassan, Helwan University

**State-of-the-Art Requirements to the Glazing in Russia**  
Mr. Alexander Chernozukov, Glass Research Institute

**Latin American**

**Glass Industry in Latin America Today**

**Cooling System of the Laminating Cylinders**  
Mr. Fabio de Menezes Barros Jr., Univas Brasileira de Vidros S/A (UBV)

**Package for Raw Flat Glass**  
Mr. Fabio de Menezes Barros Jr., Univas Brasileira de Vidros S/A (UBV)

**IG units**

**Insulated Glass (IG) Units**

**DynOpt - A Revolution in Material Flow from Stock to Direct Packing**  
Dr. Klaus Muehlthaus, Albet + Wipac

**Is it Worth it? What Happens to Energy Cost when Insulating Glass Fails**  
Mr. Gerald Loggia, Ascent Research Corporation

**Capturing and Utilising Failure Knowledge to Ensure Robust Design and Process**  
Dr. Richard Hage, Ascent Research Corporation

**Evaluation of the Remaining Service Life of IG Units**  
Mr. David West, Hydr Consulting

**Stainless Steel Spacer Bars - Warm Edge for Insulating Glass**  
Mr. Johnny Palm, Rulfach A/S

**Edge Seal Effects on Service-Life and Utility Value of Dual-Sealed Insulated Glass Units**  
Dr. Andreas Wall, Dow Corning S.p.A.

**Environmental Stress as a Factor in IG Durability, Phase I**  
Mr. Gerald Hendrickson, Ascent Research Corp.

**Substitution of SF6-Gas in Double Glazings**  
Mr. Carl Axel Lorenzen, Pilkington Denmark A/S

**The Role of Glass in Buildings**  
Mr. Ghassan Razaqpur, Building Engineering under Organization of Qatar - Iraq