EcoGlass, a.s.

Company Profile

More than glass!
Who we are

- EcoGlass is 100% Czech family owned company based on the best quality and tradition of Czech glassmakers.
- Established in 1991, financially stable company working without bank credits.
- EcoGlass is backed by in-house developed and patented technologies and strong knowledge on glass behavior and technology.
- We manufacture, sell and distribute high quality glass products, we are not low-end supplier.
What we do

• Manufacturing
  – Aspherical and spherical fire polished lenses and mirrors
  – Glass optics for LED applications
  – Glass parts for optoelectronics
  – Decorative glass parts
  – Optics for solar applications

• Glass research
  – Colored glass composition design
  – Measurement and evaluation of color
  – Software for glass technology

• Trade
  – Crystal chandelier parts
What we offer

Process knowledge
Glass technology
Strong customer support
Lens design
Tooling, prototyping, serial deliveries
Experience
Flexibility
Stability
Manufacturing plant

• 3000 m² with about 70 employees
• Space available for new or additional technology investments
Product portfolio

• Primary and secondary optics of headlamps
Product portfolio

- Highly efficient LED glass lenses
Product portfolio

• Prisms (airfield lighting components)
Product portfolio

• Optics for solar applications (SOE for CPV)
Product portfolio

• Light guides and nanostructures on glass
Product portfolio

- Lens arrays, primary optics for LED
Product portfolio

- Opto-electronic (rain sensor – patented)
Product portfolio

- Decorative glass parts (buttons for car interior)
Product portfolio

• Glass Optics for LED Traffic Information Displays
Product portfolio

- Multimedia projector mirrors
Product portfolio

• Digital imaging

Picture before treatment

Picture after treatment
Product portfolio

- Luxury gift items
Our services

• Optical design and simulations for lighting applications
  • TracePro, OpticsLab 5.96, ProSource 10
Our services

- Photometry measurements and evaluation
  - Goniophotometer Everfine GO-HD5
Our services

- 3D scanning and shape verifications, error analyses
  - Solutionix Rexcan CS2+
Our services

- Transmission/reflection measurement and color evaluation
  - Spectrophotometer Unicam PU8735

- Glass technology advisory
  - Annealing calculations
  - Glass properties calculation
  - Glass composition optimization
Research and development

- Fully fire polished lenses produced by EcoGlass according to our Czech patent No. 293 625
- Glass Decolouring Stabilization Czech Rep. No. 278632
- Rain wiper with Optical Sensor Czech Rep. No. 285291
- Optical Part with Combined Czech Rep. No. 1997-7412
Research and development

- Participation in SimuGlass project

- Research and university presentations
  - We take active part in different conferences focused on glass and this helps us to become better known in relatively small family of glass producers. We took part at the International Glass Congress in Madrid in 1993 where we had two posters presented.
  - We organised conference „Aspheric Optics“ in 1997 in Jablonec nad Nisou
  - Lecture at the 54th annual meeting of the Scandinavian society of Glass Technology in Prague in the year 2004
  - Optics and Measurement, Liberec, 2012
  - We are the active member of the Czech Glass Society and we take part in many professional meetings organized by this society. We participated in the organizing committee of the ICG Congress in Prague 2013
  - University of Economics, Prague, 2012 – Visions and reality of private family owned company
Company Milestones

• September 1991 – EcoGlass was established
• 1994 – production of gift items and aspherical lenses started
• 1997 – supplies to automotive started
• 2002 – manufacturing capacity increased 3 times
• 2006 – in-house CNC tool-shop and 3D measurement established
• 2007 – mastered in production of aspherical mirror with +/-0.015mm precision
• 2008 – automatic process of small lenses developed and installed
Company Milestones

• 2010 – in-house optical design for lighting applications
• 2011 – 3D laser tool engraving installed
• 2012 – new photometric lab equipped with precise goniophotometer for development and customer’s service
• 2014 – inspection photometric lab equipped with CCD camera measurement
• 2015 – production facility extended, CNC turning machine installed
• 2017 – optical 3D scanning including reverse engineering for error analysis established
Reference customers

- Varroc Lighting Systems
- Magna Autosystems
- ZKW Group GmbH
- Methode Electronics
- Valeo Spa Divisione Commutazione
- Lamberga, s.r.o.
- ZADI S.p.A.
- COBO Group
- Osvětlení Černoch, s.r.o.
- Tecnottica Consonni, Srl.
- Wipac Limited
- Automotive Lighting
- MagPower
- ....
Technical information

• Available glass materials:
  – Soda-lime with $n_D=1.521$
  – Borosilicate with $n_D=1.473$
  – F2 with $n_D=1.620$
  – Special glasses upon request and availability of raw material

• General limitation of product size (may be exceeded in particular cases):
  – By weight: up to 300 grams
  – By maximum dimension: up to 100mm
Technical information

• Tool-shop equipment
  - CNC milling machine
  - CNC turning machine
  - 3D laser engraving of tools

• Quality control and evaluation
  - Tactile and optical 3D scanning
  - Surface roughness measurements
  - Photometric evaluation

• Certificates
  - ISO 9001:2015
  - ISO 14001:2015
Contacts

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