EPIC Online Technology Meeting on Endoscopy

Coating Solutions from Optics Balzers for the Medical Endoscopy Market

17.06.2020
Company Overview

- Founded in 1946
- Ca. 500 FTE
- 3 Production Sites
- WW presence

What we do: In close collaboration with our customers, we design and manufacture optical coatings and components by adhering to strict specifications and maintaining high quality standards. Following market and technology trends in the photonics industry, we develop and offer advanced thin-film coating solutions for novel customer products and applications.
Attractive Markets
Unlimited applications for your high-tech markets

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**Sub-Segments**

- Microscopy
  - Diagnostics & Analytics
  - Endoscopy
  - Surgery & Treatment
  - others
- Laser Processing
  - Construction & Logistics
  - Factory Automation
  - Metrology & Inspection
  - Environmental Protection
  - Safety & Security
  - Digital Imaging (Industrial Cameras)
- Digital Photography
  - Mobile Devices
  - Augmented & Mixed Reality
  - Smart Home
  - Projectors
  - other
- Entertainment Lighting
  - Technical Lighting
  - other
- Earth Observation & Space Exploration
- Satellite Communication
- Ground Based Astronomy
- Defense
- other
- HUD & Digital Instrument Cluster
- LiDAR
- Cameras
- Puddle Lights
- Headlights
- others
Overview Optical Coating-Technologies

Evaporation
- Evaporation (e-beam and boat sources)
- IAD Evaporation (Ion Assisted Deposition)

Sputtering
- Magnetron Sputter Deposition
- Plasma-Assisted Reactive Magnetron Sputter Deposition
- Ion Beam Sputtering
Customer Value / Competitive Advantage

Actual Business
- Ca. 4 Mio AR lens coatings /Y(1-side)
- >30 years in business experience
- highly expertise Teams in substrates processing, such as handling, automated cleaning, tooling, visual inspection.
Main Products

Endoscopy

Solutions

- Broadband AR Coatings VIS+NIR
- Single or Dual WL AR Coatings
- AR on sapphire windows
- Highly absorbing Black-Chrome Coating
- High Reflective Mirror Coatings (FSM & RSM)
- Solderable Coating Gelot™
- Low Temperature Coatings
- ICG edge Filters – Bandpass
  - Short Pass / Long Pass
  - Notch
  - Beamsplitter
Example of BB AR VIS + NIR Spectral curve
ICG & HSI Filter-Coatings

Benefits
- highly precise Cut-on and Cut-off wavelengths
- steep spectral edges for optimal separation between excitation and emission signal
- excellent out-of-band blocking >= OD6
- transmission values > 95% in Pass-Band
- excellent environmental stability which is rigorously tested
- highly educated and experienced Engineering staff for advanced Coating design & - production
- sophisticated PARMS coating technology
Example of ICG Bandpass Filter Curve

Example Exitation Filter Curve
incl. Design vs. Production

Example Emission Filter Curve
incl. Design vs. Production
Thank you for your attention!

Tell us your request, we will be pleased to support you!

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