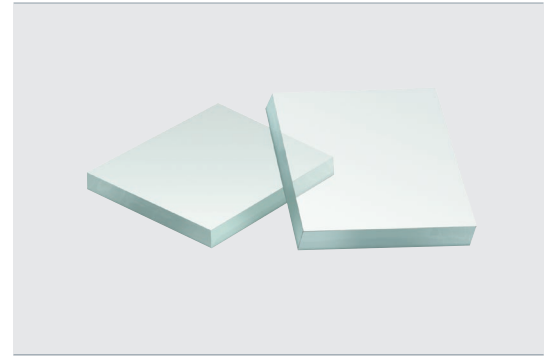


TopFlex™ Easy-to-clean coating

Solvent- and Soil-Repellent Coating, UV/IR-Transparent

Hydrophobic coating TopFlex™ Gelot™ is chemically resistant against water, oil and grease. This topcoating is easy to clean and repellent to dirt. The coating exhibits an outstanding adherence to the surface or coating beneath and is very resistant to various forms of cleaning processes.



Benefits

- Dirt and solvent repelling coating
- Soil resistant
- Very smooth and easy-care surface
- Spectrally neutral in VIS and IR range
- Wetting angle approximately 110° to 120°
- Temperature stability up to 250°C
- Excellent environmental stability
- Tested according to automotive requirements
- Improved corrosion resistance for metallic coatings
- Combinable with Anti-static coatings

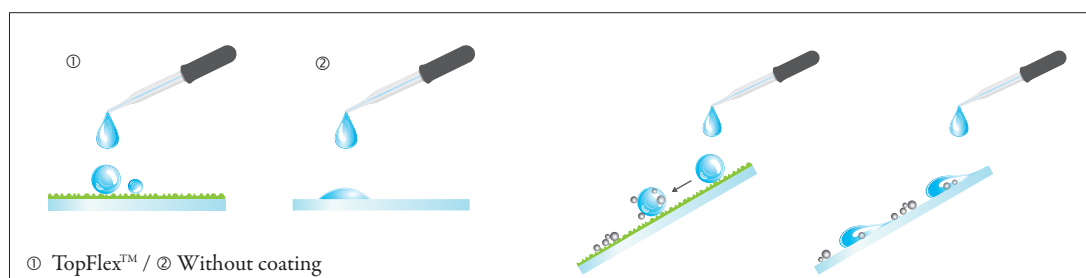
Applications

- | | |
|------------------|-------------------------------|
| ■ Automotive | ■ Anti-Reflection coatings |
| ■ Heater windows | ■ Metallic coatings & mirrors |
| ■ Sensorics | ■ Conductive coatings |
| ■ Camera glass | ■ Anti-static coatings |
| ■ Endoscopy | ■ Beamsplitter |
| ■ Diagnostics | ■ Filter |
| ■ Research | |

Cleaning

TopFlex™ can be cleaned with a soft cotton cloth soaked in mild soapy water, ethanol or other non-abrasive substances.

Schematic of TopFlex™

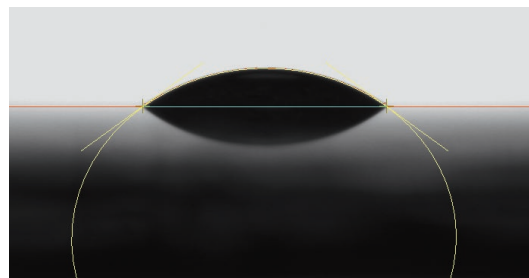


Technical Data

AR coating without TopFlex™ coating

Wetting angle = 36°

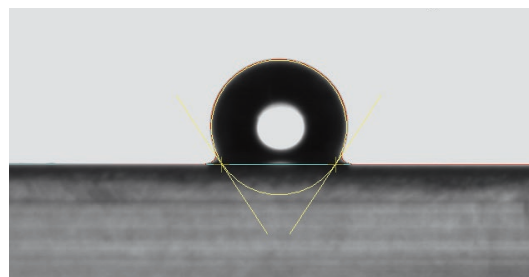
Fluids and dirt adhere on the surface



AR coating with TopFlex™ coating

Wetting angle = 120°

Fluids and dirt do not adhere on the surface



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Durability tests – amongst others tested according to typical automotive requirements

Environmental tests	TopFlex™ A	TopFlex™ UV
Cheesecloth 500 cycles	✓	✓
Cheesecloth 10'000 cycles	✓*	✓*
Cheesecloth 50'000 cycles	✓*	
Rubber eraser 50 cycles	✓	✓
UV-A resistance (70W/m ² wavelength range 320-390nm and 130W/m ² 390-450nm)	200h	500h
Salt fog 24h	✓	✓
IPA/water (1:1) (5min immersion at room temperature, 80°C/24h)	✓	✓
Cola (5min immersion at room temperature, 80°C/24h)	✓	✓
Sweat/alkaline (5min immersion at room temperature, 80°C/24h)	✓	✓
Sunscreen (5min immersion at room temperature, wiping, 70°C/48h)	✓	✓
Acid spray **	✓	not tested
Soapy solution (5min immersion at room temperature, 80°C/24h)	✓	✓
Boiling 1h (in DI water)	✓	not tested
Condensated water (40°C, 144h)	✓	not tested
Storage 90 °C/500h	✓	✓
Climate chamber 49 °C/ 95%r.h./500h	✓	✓
Climate chamber 85 °C/85%r.h./500h	✓	✓
T-shock -40 °C/ +85 °C/ 0.5h/ 500 cycles	✓	✓

* depending on condition

** HCl and other acids mixture, pH approx. 0.9, 2h spray at 35°C, storage at 50°C/ 95%r.h. for 17 days

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