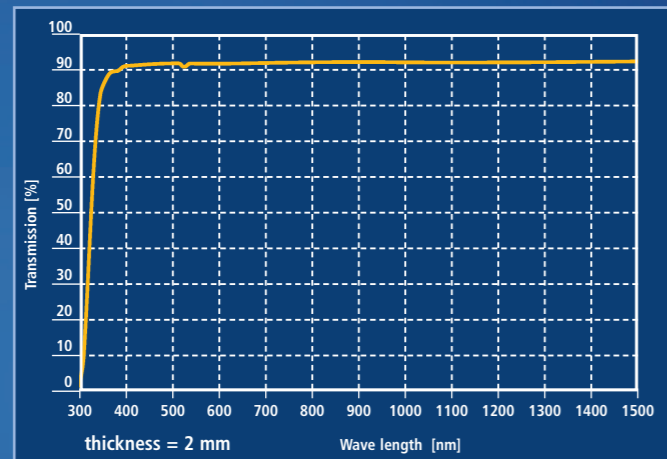


IMPLEMENT ENVIRONMENTAL STATE-OF-THE-ART PRACTICE – GLASS AND MODERN RECYCLING SYSTEMS:

- Glass consists of non-fossil raw materials that occur in nature in virtually unlimited quantities
- Glass can be completely recycled
- Production in compliance with stringent environmental standards
- Recycling systems for packaging
- Energy-efficient production processes

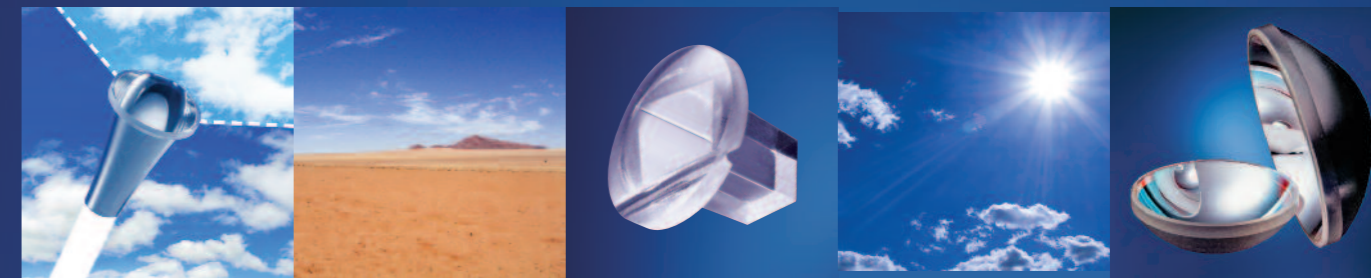
RECOMMENDED GLASS*

Docter Optics Doctan®
Transmission:



Refraction Index: $n_d = 1.5221$
 Abbe Number: $v_d = 55.47$
 Median Coefficient of thermal Expansion: $\alpha_{(20...300^\circ\text{C})} = 9.52 \times 10^{-6} / \text{K}$
 Density: $\rho = 2.52 \text{ g/cm}^3$

*) Other types of glass available upon request



INSPIRED BY DOCTER OPTICS:
OPTICAL GLASS CONCENTRATORS
FOR CPV SYSTEMS

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 Fax: +49 36482 88174
 egs@docteroptics.com

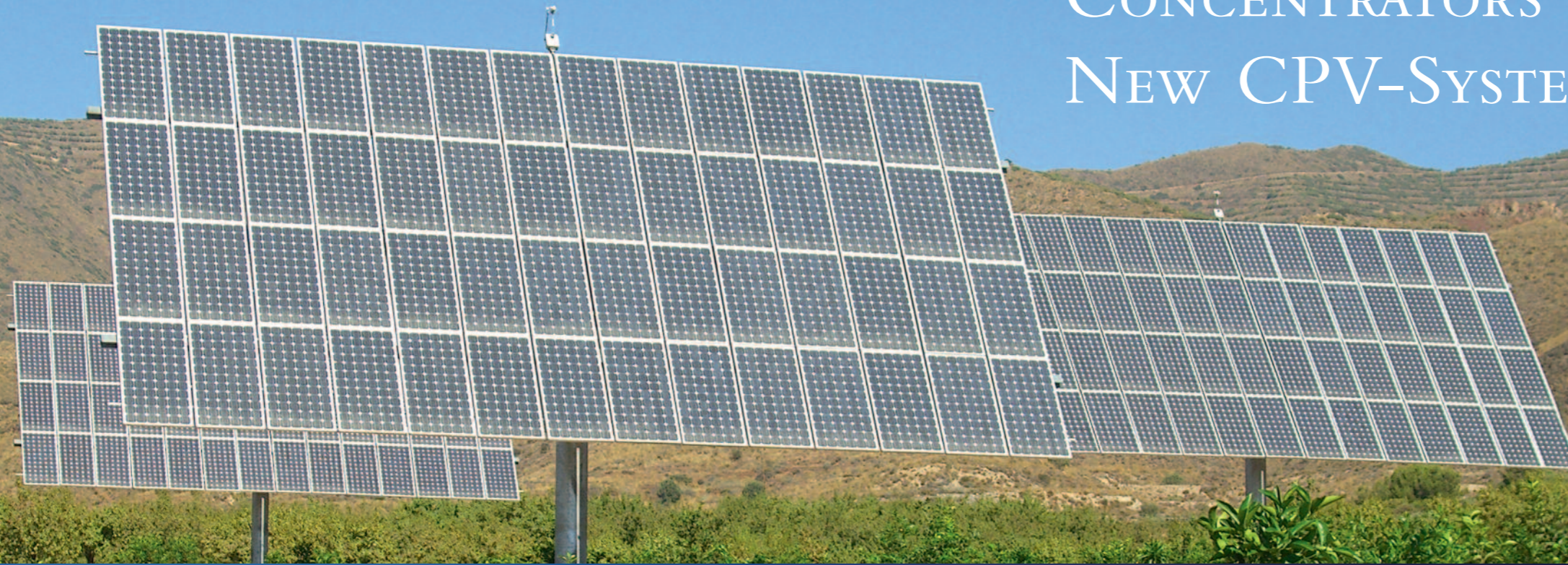
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CONCENTRATORS FOR NEW CPV-SYSTEMS



IMPROVE YOUR VALUE CHAIN – WITH HIGH-TECH PRODUCTION BY DOCTER OPTICS:



Light pipes for
homogenization
and concentration
of sunlight

- International market and technology leader in the area of automotive lenses
- Service along the entire value supply chain: Optical design, prototyping, industrial-scale production, logistics
- Highly automated production
- Certified best-in-class quality management
- Standardized production and logistics chains

REDUCE OPERATING COSTS – GLASS RETAINS ITS TRANSPARENCY WITHOUT MAINTENANCE:



Concentrators can be
produced in virtually all
shapes and sizes

- Virtually unlimited durability
- Consistent performance over the long term
- High solarization stability
- High thermal stability
- First-class price/ performance ratio

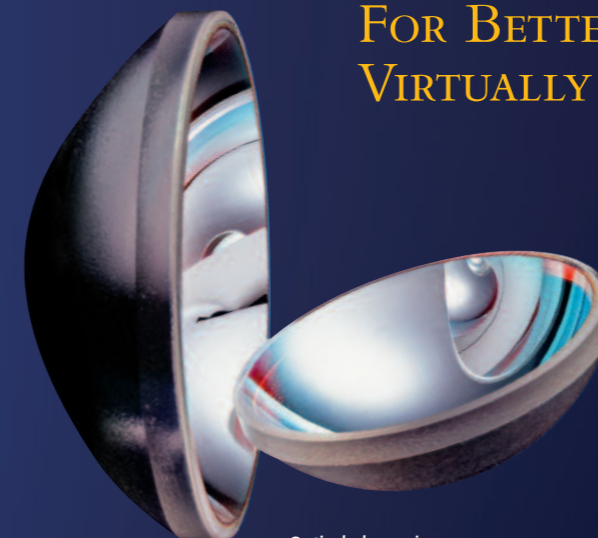
FOR MAXIMUM EFFICIENCY – CONCENTRATORS FROM DOCTER OPTICS:

- Concentration levels of 500 to 1000 suns
- Wide angle of acceptance
- Exceptional system stability
- Tracking angle with high deviation tolerance



Concentrator and beam splitter
combined in a single component

FOR BETTER CONCENTRATORS – VIRTUALLY UNLIMITED POSSIBILITIES:



Optical glass mirrors

- Design freedom
- Convex or plano entrance surfaces (also free-form)
- Curved sides (convex, concave, free-form)
- Flange for simple assembly
- Double side molded optical surfaces
- AR and other coatings available upon request

(Figures not to scale)