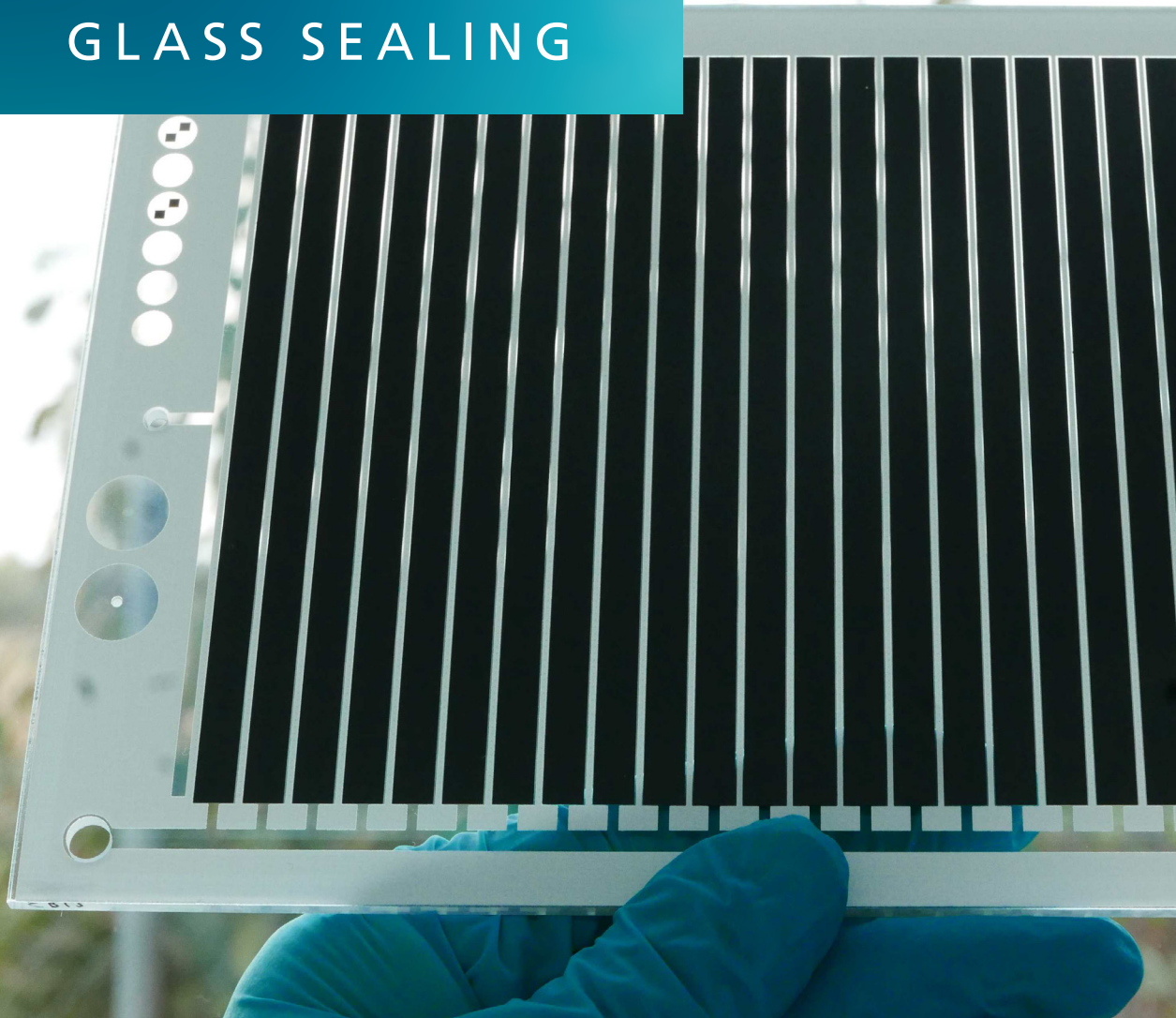


# GLASS SEALING



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When other sealing materials approach their limits, GLASS SOLDERS show their full potential:

- Gastight (even  $H_2$ ) bonds due to viscous flow above  $T_g$ .
- Adjustable thermal expansion coefficient (CTE), allowing strong bonding of ceramics and metals.
- Good chemical and mechanical durability up to  $T_g$ .
- Fusing temperatures from 400 °C far above 1000 °C by selected glass compositions.

For even higher temperatures up to 1200 °C and advanced applications CRYSTALLIZING GLASS SOLDERS offer:

- Mechanical and chemical durability far above  $T_g$  of the starting glass.
- Application even above sealing temperature.
- Broader range of adjustable CTE, starting from  $-1 \cdot 10^{-6} K^{-1}$  to  $16 \cdot 10^{-6} K^{-1}$ .
- Tunable conductivity and permittivity.

We develop and produce for your needs glass sealing compositions adapted to your process applications, among others:

- CTE range
- Application temperatures
- Contact materials and operation atmospheres
- Type of application
- Adapted flow behavior
- Structuring and crystallization program ( $T_{max}$ , heat-up rate, holding times)
- Up to 50 kg solder glass as printable slurries, powders, frit or moldings.

For more information visit our website or contact us!



## SUCCESS STORIES – IN USE

Hermetic compounds for  
photovoltaics electronics lighting optoelectronics telecommunications  
automotive technology sensors

Materials almost without thermal expansion for  
ceramic hobs reflecting telescopes

Bioactive glass ceramics for medical devices

Gas-tight and insulating sealing for fuel cells

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