




Developed for extreme conditions. Made to meet your challenges.

SCHOTT NEXTREMA® is a highly versatile glass-ceramic material platform that allows product designers, engineers and other developers to obtain exactly the right material to meet their project's individual demands.



Near zero thermal expansion. Leaves room for creativity.

Modern product design concepts depend on reliable material performance, even when exposed to heat-intensive environments. And thanks to its intelligent microstructure, our glass-ceramic features extremely low levels of thermal expansion.



Incredible thermal shock resistance. That fires up your imagination.

It's not just how much temperature the material can resist, it's also how well it can handle a quick change in temperature – NEXTREMA®'s resistance to thermal shocks varies by type and can reach up to 820 °C with almost no effect on the integrity of the material.



DISCOVER THERMAL SHOCK RESISTANCE OF
NEXTREMA® GLASS-CERAMICS

High heat resistance. To meet your high demands.

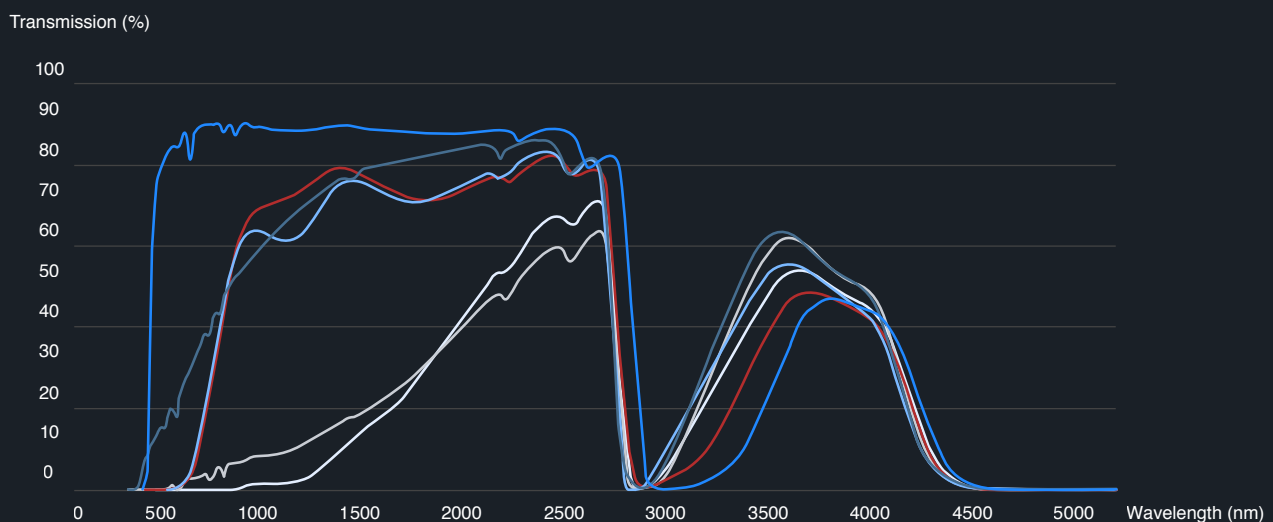
Depending on the type, SCHOTT NEXTREMA® glass-ceramic can handle temperatures of up to 950 °C without suffering from fractures. That opens up a wide range of possible applications for products in industrial or domestic applications.

Perfect transmission. For your brightest ideas.

Six transmission profiles enable engineers and product designers to choose the most suitable glass-ceramic with the profile that fits their product – instead of having to adapt their product to the material.

NEXTREMA® transmission profiles

A profile to fit your needs. Explore and compare the transmission values for all 6 NEXTREMA® glass-ceramic profiles measured for a polished sample of a specific thickness.



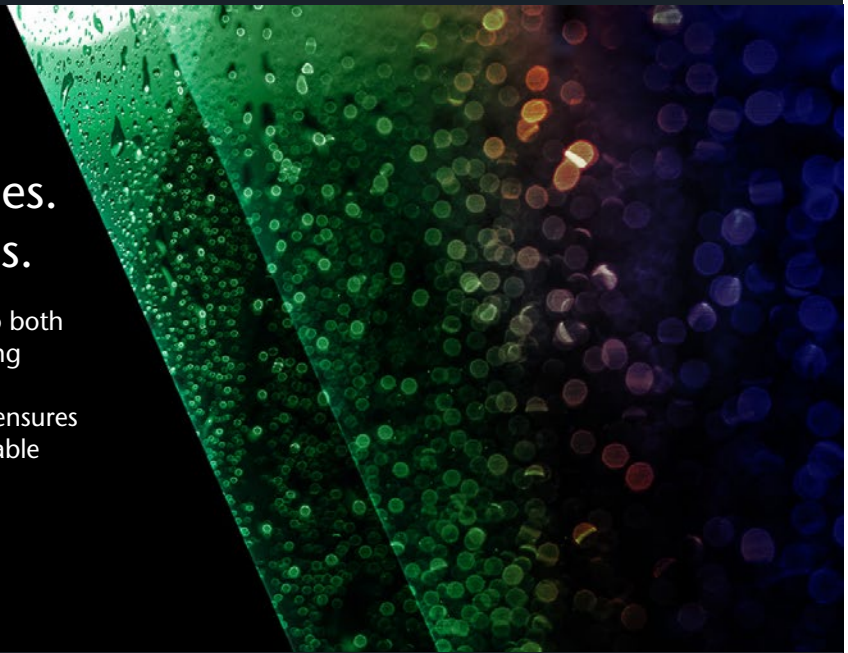
This graph is based on data from individual measurements. Deviations may result from manufacturing process. Typical transmission graph of different ceramization states with sample thickness of approximately 4 mm.

Select the according NEXTREMA® glass-ceramic type:




Resistant to acids and bases. But not to your challenges.

Our glass-ceramic's surface is highly resistant to both acids (DIN 12116) and bases (ISO 695) – making it a very reliable material for use in aggressive environments. The elimination of degradation ensures a consistent material behavior and enables a stable process environment.



View chemical properties of NEXTREMA® glass-ceramics

Key Properties	Benefits	tinted (712-3)	translucent bluegrey (712-6)	opaque grey (712-8)	transparent (724-3)	translucent white (724-5)	opaque white (724-8)
High chemical resistance comparable to laboratory glassware	Comparable resistance to laboratory glassware	✓			✓	✓	✓
	Reliable protection against corrosive environments	✓			✓	✓	✓
Non-porous, smooth surface	No outgassing in vacuum environments	✓	✓	✓	✓	✓	✓
	No generation of particles without external influence	✓	✓	✓	✓	✓	✓



A process inert surface. Open for progressive thinking.

Our NEXTREMA® glass-ceramic solutions are process inert, which prevents undesirable interactions between the material and their surrounding environment. Even in demanding processes, this property offers new possibilities for innovative applications.

Exploring the material

Find out which kind of glass-ceramic can make your next project become reality. Each with its own strengths, NEXTREMA® provides undeniable flexibility and potential.



NEXTREMA® tinted

A homogeneously colored (dark-tinted) infrared glass-ceramic that is incredibly robust and temperature shock resistant. It is characterized by high mechanical stability.

Example applications

- Attractive covers for indoor and outdoor radiant heaters
- Glare-reducing covers for infrared heaters (e.g. in industrial drying processes)
- Decorative element for applications in the fields of architecture, furniture and the house-hold appliance industry



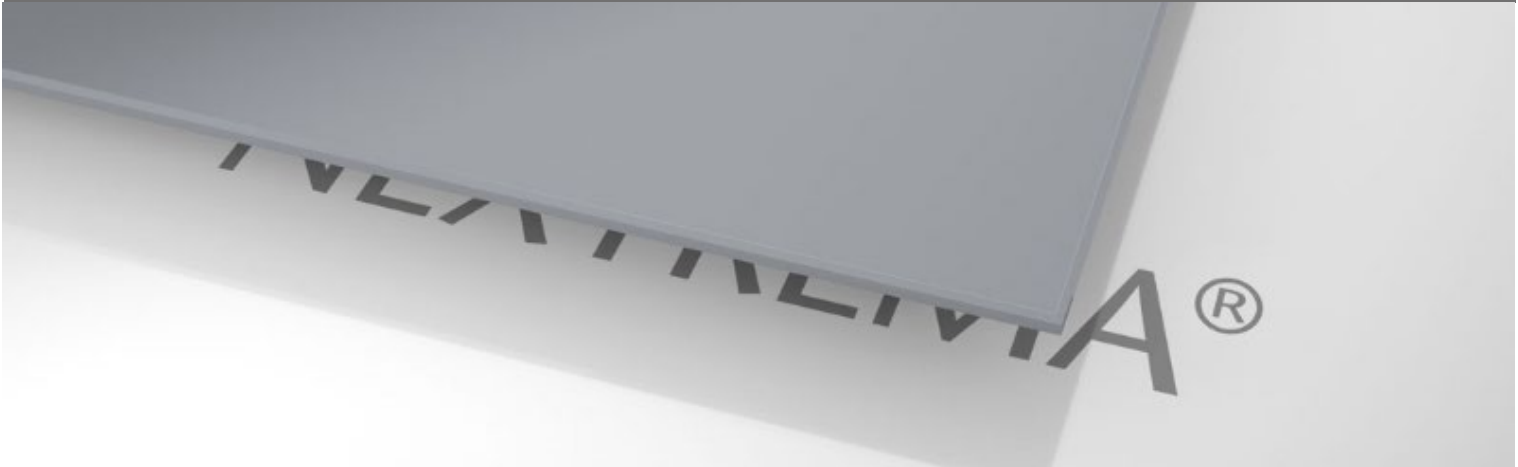
NEXTREMA®

NEXTREMA® translucent bluegrey

The material type translucent bluegrey offers countless possibilities for engineers and designers in the IR range. This NEXTREMA® type boasts more than outstanding infrared wave transmission – and enabling a dead-front effect, too. I.e. when viewed from the top, none of the parts installed below are visible, yet the light still shines from below.

Example applications

- Elegant cover plates for indoor and outdoor heaters
- Decorative element for applications in the fields of architecture, furniture and the house-hold appliances



NEXTREMA®

NEXTREMA® opaque grey

The opaque grey material type is a top-quality glass-ceramic used in countless applications. It is the strongest heat-insulator out of all NEXTREMA® types. This is down to its low overall transmission in the IR spectrum. Opaque grey also boasts enormous temperature resistance.

Example applications

- Inner lining of high-temperature cleanroom furnaces (e.g. in display manufacturing)
- Easy-clean cover plates for magnetrons in microwave ovens
- Decorative cover plates for dark radiator heating systems



NEXTREMA®

NEXTREMA® transparent

The glass-ceramic with the highest resistance to temperature shocks out of all six material types: it can withstand even drastic temperature differences of up to 820 °C.

Example applications

- Cover plates for radiant heating elements in industrial processes
- Inspection windows for high-temperature processes
- Support plates for high-temperature processes
- Substrates for transparent thin-layer heating elements



NEXTREMA®

NEXTREMA® translucent white

The material type translucent white is a high IR transmission glass-ceramic. This glass-ceramic possesses the widest IR transmission range (below 2,800 nm) of all NEXTREMA® types. Its chemical resistance is impressive too.

Example applications

- Glare-reducing covers for radiant heaters in (non-) industrial processes
- Elegant cover plates for indoor and outdoor heaters
- Heat beds for 3D printers



NEXTRERIA®

NEXTREMA® opaque white

The material type opaque white is a glass-ceramic that stands out in particular due to its temperature resistance. The opaque, durable glass-ceramic possesses excellent heat resistance: it can withstand up to 950 °C.

Example applications

- Inner lining for high-temperature cleanroom furnaces
- Easy-clean cover plates for magnetrons in microwave ovens
- Decorative element for applications in the fields of architecture, furniture and the household appliance industry
- Light diffusers for the lighting sector

Create your success story with SCHOTT NEXTREMA®

We place great value on making sure that our customers get what they need to move their ideas forward. That's why we'd love to hear from you.

BE NEXTREMA®

Contact

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