

SCHOTT® Flat Glass

Product Information SCHOTT® Energy



Product Description

SCHOTT® Energy is made with durable heat reflective coatings on its surface. It saves energy and reduces significantly the front temperature of e.g. outer oven doors at the same time as it allows a clear insight into the oven cavity.

SCHOTT® Energy is available on clear float glass both single and double side coated as well as on the special glass BOROFLOAT® upon request.

SCHOTT® Energy applied on clear float glass is fully tempered as the final processing step. This tempering clearly improves both the mechanical and thermal load capacity. A maximum admissible continuous temperature of 280°C applies as loss of temper will occur by exceeding this temperature limit. It allows the use as an inner oven door panel for conventional ovens.

For higher temperature requirements in pyrolytic self-cleaning appliances we recommend the use of Schott BOROFLOAT®.

Function

SCHOTT® Energy is composed of electrically conductive coatings on top of the glass surface. These microscopically thin, virtually invisible coatings, which reflect far infra-red wavelength, are applied onto the glass by the use of either chemical vapour deposition (CVD) or physical vapour deposition (PVD).

These processes ensure that the coating adheres well to the surface and provides excellent optical properties with a good resistance against the loads in practice, plus the reflective properties desired.

Heat insulation coatings make use of two physical effects for the reduction of heat transmission. On the one hand they reflect the thermal radiation while on the other hand they reduce heat emission from the surface thanks to an exceptionally low emission coefficient as compared to that of uncoated glass. This is why such coatings are also called low-E coatings.

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Assembly of single side coated glass panels

Fundamentally, single side coated panels can be fitted in two ways. Either the coating is applied on the side of the heat source or the other way round. If the coating is faced towards the heat, reflection of heat radiation is the dominating effect. If the coating is positioned to the opposite side of the heat, reduced emission is the main effect. Double side coated glasses combine the above described properties.

The coating arrangement has a different effect on the front panel temperature depending on the mode of operation. We recommend our customers to conduct practical testing to see what direction meets best their requirements.

Please contact us for any further assistance.

Typical Technical Data

Product name	Surface resistance	Emissivity	Standard thickness
SCHOTT® Energy	20 Ohm / square	0.22	3.2, 4, 6 mm
SCHOTT® Energy fasT	20 Ohm / square	0.22	4 mm
SCHOTT® Energy Plus	10 Ohm / square	0.18	4, 5 mm
SCHOTT® Energy Double	10 / 30 Ohm / square	0.18 / 0.30	4 mm
SCHOTT BOROFLOAT® Energy	30 Ohm / square	0.30	3.8 mm
SCHOTT BOROFLOAT® Energy Double	30 / 30 Ohm / square	0.30 / 0.30	3.8 mm

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