

D 263[®] T eco

The gold standard in imaging & sensing

This thin borosilicate glass is the gold standard in imaging and sensing fields. Thanks to unique down-draw technologies, D 263[®] T eco has a fire-polished surface, high optical precision and geometrical accuracy. It is available in a variety of thicknesses from 1.1 mm down to 0.03 mm.



High optical transmittance



Wide thickness range



High chemical resistance



Tight geometrical properties



Fire-polished surface with low roughness



High temperature stability

Applications

All-round technical excellence makes D 263[®] T eco a highly valued glass in many applications across different fields, setting gold standards in these markets.

D 263[®] T eco can be used for:

- IR cut filter
- Optical low pass filter (OLPF) substrate
- Wafer-level optics
- Micro-lens arrays (MLA)
- Diffractive optical elements (DOE)
- Diffusers
- Sensor cover
- Carrier wafer



Automotive



Consumer electronics



Smart home



Optics



Semiconductors



Industry

SCHOTT
glass made of ideas

SCHOTT D 263[®] T eco

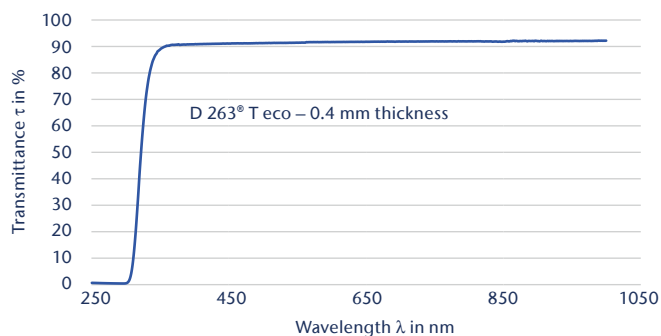
Outstanding and adaptable technical advantages

High optical transmittance

The unique composition of D 263[®] T eco and its top-quality blend of raw materials enables a high level of high optical transmittance in the UV to NIR range. A colorless appearance also helps to deliver optimum image quality, without unwanted colorization effects regardless of application.

High chemical stability

SCHOTT D 263[®] T eco performs consistently well in demanding conditions. Its high chemical resistance makes it particularly resilient in the consumer electronics, semiconductor, automotive and optical fields.



A wide range thicknesses

While D 263[®] T eco is available in a wide variety of thicknesses (from 0.03 mm to 1.1 mm), the geometrical tolerances of the glass remain consistently tight, with guaranteed quality for sheet, cut-to-size substrates and wafer.

Tight geometrical properties

Tight thickness tolerance, low TTV and warp enables high quality wafer level optics.

Mechanical properties

Density ρ	g/cm ³	2.51
Young's modulus E	kN/mm ²	72.9
Poisson's ratio μ		0.21
Knoop hardness	HK 0.1/20	470
Vickers hardness	HV 0.2/25	510
Chemical toughening		possible

Electrical properties

Dielectric constant ε _r	1 GHz	6.4
	5 GHz	6.3
Dissipation factor tan δ in 10 ⁻⁴	1 GHz	74
	5 GHz	101

Thermal properties

Coefficient of thermal expansion α (20 °C; 300 °C)	7.2 · 10 ⁻⁶ K ⁻¹
Transformation temperature T _g	557 °C

Optical properties

Refractive index n _D	1.5230
Luminous transmittance τ _{vD65} (d = 0.30 mm)	91.7%

Chemical properties

Hydrolytic resistance	DIN ISO 719	HGB 1
Acid resistance	DIN 12116	S 3
Alkali resistance	DIN ISO 695	A 2

Geometrical properties

	Sheet	Wafer
Formats*	Min. Length x Width [mm]	440 x 360
	Max. Length x Width [mm]	510 x 430
	Rectangular min.	50 x 50
	Rectangular max.	300 x 300
Thickness range	Min. [mm]	0.03
	Max. [mm]	1.10
Surface roughness	< 1 nm RMS	

* Customized formats are available upon request.

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