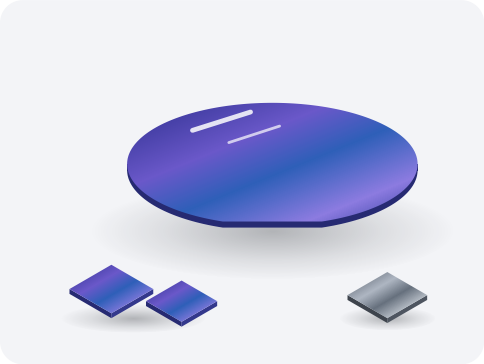
SERIES S20 – S21 · THERMAL OXIDE

Thermal oxide SiO_2 on silicon wafers



Dense, uniform silicon dioxide grown by dry or wet thermal oxidation. 90 nm and 285 nm give the best optical contrast for locating graphene and other 2D flakes; on heavily doped P++ silicon they also form a ready-made back gate.

- Oxide on both sides as standard; front-side only on request
- Uniformity typically better than ± 3 % across the wafer
- Refractive index 1.46 at 633 nm
- Ellipsometry data on request

RECOMMENDED USES

Oxide	Recommended for
25 – 50 nm	Gate dielectrics, MOS capacitors, tunnelling, surface-functionalisation studies
90 nm · 285 nm	Optimum optical contrast for graphene and 2D flakes; back-gated FETs on P++
100 nm · 300 nm	General insulation, ellipsometry reference, nanowire devices
500 nm – 2 µm	Electrical isolation, waveguide claddings, MEMS, etch masks

ON P-TYPE ⟨100⟩ SILICON, 1 – 10 Ω·CM

Ref. No.	Wafer	Oxide thickness	Process	Tolerance	Price
S2001	2"	25 nm	Dry	± 2 nm	On request
S2002	2"	50 nm	Dry	± 2.5 nm	On request
S2003	2"	90 nm	Dry / wet	± 5 %	On request
S2004	2"	100 nm	Dry / wet	± 5 %	On request
S2005	2"	285 nm	Wet	± 5 %	On request
S2006	2"	300 nm	Wet	± 5 %	On request
S2007	2"	500 nm	Wet	± 5 %	On request
S2008	2"	1 µm	Wet	± 5 %	On request
S2009	2"	2 µm	Wet	± 5 %	On request
S2010	3"	25 nm	Dry	± 2 nm	On request
S2011	3"	50 nm	Dry	± 2.5 nm	On request
S2012	3"	90 nm	Dry / wet	± 5 %	On request
S2013	3"	100 nm	Dry / wet	± 5 %	On request
S2014	3"	285 nm	Wet	± 5 %	On request
S2015	3"	300 nm	Wet	± 5 %	On request
S2016	3"	500 nm	Wet	± 5 %	On request
S2017	3"	1 µm	Wet	± 5 %	On request
S2018	3"	2 µm	Wet	± 5 %	On request
S2019	4"	25 nm	Dry	± 2 nm	On request
S2020	4"	50 nm	Dry	± 2.5 nm	On request

Ref. No.	Wafer	Oxide thickness	Process	Tolerance	Price
S2021	4"	90 nm	Dry / wet	± 5 %	On request
S2022	4"	100 nm	Dry / wet	± 5 %	On request
S2023	4"	285 nm	Wet	± 5 %	On request
S2024	4"	300 nm	Wet	± 5 %	On request
S2025	4"	500 nm	Wet	± 5 %	On request
S2026	4"	1 µm	Wet	± 5 %	On request
S2027	4"	2 µm	Wet	± 5 %	On request
S2028	6"	25 nm	Dry	± 2 nm	On request
S2029	6"	50 nm	Dry	± 2.5 nm	On request
S2030	6"	90 nm	Dry / wet	± 5 %	On request
S2031	6"	100 nm	Dry / wet	± 5 %	On request
S2032	6"	285 nm	Wet	± 5 %	On request
S2033	6"	300 nm	Wet	± 5 %	On request
S2034	6"	500 nm	Wet	± 5 %	On request
S2035	6"	1 µm	Wet	± 5 %	On request
S2036	6"	2 µm	Wet	± 5 %	On request
S2037	8"	25 nm	Dry	± 2 nm	On request
S2038	8"	50 nm	Dry	± 2.5 nm	On request
S2039	8"	90 nm	Dry / wet	± 5 %	On request
S2040	8"	100 nm	Dry / wet	± 5 %	On request
S2041	8"	285 nm	Wet	± 5 %	On request
S2042	8"	300 nm	Wet	± 5 %	On request
S2043	8"	500 nm	Wet	± 5 %	On request
S2044	8"	1 µm	Wet	± 5 %	On request
S2045	8"	2 µm	Wet	± 5 %	On request

ON P++ SILICON, 0.001 – 0.005 Ω·CM (BACK-GATE)

Ref. No.	Wafer	Oxide thickness	Process	Tolerance	Price
S2101	2"	90 nm	Dry / wet	± 5 %	On request
S2102	2"	285 nm	Wet	± 5 %	On request
S2103	2"	300 nm	Wet	± 5 %	On request
S2104	3"	90 nm	Dry / wet	± 5 %	On request
S2105	3"	285 nm	Wet	± 5 %	On request
S2106	3"	300 nm	Wet	± 5 %	On request
S2107	4"	90 nm	Dry / wet	± 5 %	On request
S2108	4"	285 nm	Wet	± 5 %	On request
S2109	4"	300 nm	Wet	± 5 %	On request
S2110	6"	90 nm	Dry / wet	± 5 %	On request
S2111	6"	285 nm	Wet	± 5 %	On request
S2112	6"	300 nm	Wet	± 5 %	On request

Specifications are typical values; every lot ships with a Certificate of Conformance, and measured data are available on request. Prices on request.