

Global Semiconductor Silicon Wafer Market

Market Research Report | 2025-10-27 | 151 pages | BCC Research

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Report description:

Description

Report Scope

This report analyzes the semiconductor silicon wafer market across multiple segments, including crystal growth methods, wafer size, wafer-bonding methods and end users, offering insights into key trends and growth drivers. The study focuses on crystal growth methods such as Czochralski (CZ), Bridgman and float zone (FZ). It assesses the adoption of methods across different wafers sizes, including 300 mm, 200 mm, 100 mm and others. The report evaluates market demand across key wafer bonding methods segments, namely direct bonding, surface-activated bonding, anodic bonding and plasma bonding. In addition, the report is analyzed across the end users segments: IT and telecommunication, healthcare, aerospace and defense, industrial, consumer electronics, automotive and others.

The report also provides a comprehensive regional analysis covering North America, Europe, Asia-Pacific and the Rest of the World. It evaluates the drivers, challenges and emerging trends, while highlighting innovations in material design and performance enhancement. The study concludes with an analysis of major market companies and their offerings. The base year for the study is 2024, with projections for the years 2025 through 2030, including the compound annual growth rate (CAGR) for the forecast period.

Report Includes

- 45 data tables and 55 additional tables
- An analysis of the global market for semiconductor silicon wafers
- Analyses of the global market trends, with revenue data for 2024, estimates for 2025, forecasts for 2026, 2028, and projections of CAGRs through 2030
- Estimates of the market's size and revenue growth prospects, accompanied by a market share analysis by crystal growth method, wafer size, wafer-bonding methods, end users, and region
- Facts and figures pertaining to market dynamics, technological advances, regulations, prospects, and the impacts of macroeconomic variables

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- Insights derived from Porter's Five Forces model, as well as an industry value chain analysis
- Emerging technologies and new developments in silicon wafers, as well as an evaluation of recent patent activity featuring key granted and published patents
- Overview of sustainability trends and ESG developments, with emphasis on consumer attitudes, as well as the ESG risk ratings and practices of leading companies
- Analysis of the industry structure, including companies' market shares and rankings, strategic alliances, M&A activity and a venture funding outlook
- Profiles of the leading companies in the market, including Shin-Etsu Chemical Co. Ltd., Siltronic AG, GlobalWafers Co. Ltd., SUMCO Corp., and SK Siltron Co. Ltd.

Executive Summary

Summary:

The global market for semiconductor silicon wafers is expected to grow from \$14.6 billion in 2025 and is projected to reach \$20.2 billion by the end of 2030, at a compound annual growth rate (CAGR) of 6.7% during the forecast period of 2025 to 2030.

The silicon wafer semiconductor is the basis platform for integrated circuits (IC) and sophisticated semiconductor device production. Silicon wafers are fundamental substrates made mostly of high-purity crystalline silicon, on which billions of transistors and other circuit elements are constructed by employing sophisticated photolithography and deposition methods. They are a key enabler of presentday electronics, the central part of chips employed in smartphones, laptops, EVs, industrial automation, data centers and AI processors

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Abbreviations

Company Profiles

EPISIL-PRECISION INC.

FERROTEC (USA) CORP.

GLOBALWAFERS JAPAN CO. LTD.

OKMETIC

RS TECHNOLOGIES CO. LTD.

SHANGHAI SIMGUI TECHNOLOGY CO. LTD.

SHIN-ETSU CHEMICAL CO. LTD.

SILICON MATERIALS INC.

SILTRONIC AG

SK INC.

SOITEC

SUMCO CORP.

WAFERPRO

WAFER WORKS CORP.

ZHONGHUAN LEADING SEMICONDUCTOR TECHNOLOGY CO. LTD.

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