Thin Wafer Market by Wafer Size (125 mm, 200 mm, and 300 mm), Process (Temporary Bonding & Debonding and Carrier-less/Taiko Process), Technology, Application (MEMS, CIS, Memory, RF Devices, LED, Interposer, Logic) and Geography - Global Forecast to 2027

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Report description:

The thin wafer market is projected to grow from USD 11.4 billion in 2022 and is projected to reach USD 20.6 billion by 2027; it is expected to grow at a CAGR of 12.5% from 2022 to 2027.

Reducing sizes of electronic devices, rising adoption of MEMS technology in portable health monitoring devices, growing smartphone and consumer electronics markets and high amount of material saving is expected to fuel the growth of the thin wafer market.

However, issues related to efficiency maintenance is limiting the growth of the thin wafer market.

"Market for 200 mm wafers to hold a significant share during the forecast period."

200 mm wafers are expected to witness significant demand majorly on account of their wide adoption in power devices, ICs, LEDs, MEMS, and many other semiconductor and electronic devices. The 200 mm wafers are affordable and can be easily integrated into various devices. As a result, these wafers are adopted on a large-scale basis by small-scale and large-scale electronic manufacturers. Furthermore, for the manufacturing of devices that require small die sizes and have a global shipment size in the thousands, these wafers are increasingly being used. LED, RF device, and power transistors manufacturers use 200 mm silicon wafers.

In May 2022, Soitec (France) has released its first 200mm silicon carbide SmartSiC wafer. With the release, Soitec is able to enlarge its SiC product portfolio beyond 150mm, take the development of its SmartSiC wafers to the next level and cater to the growing demand of the automotive market.

"Wafer polishing equipment market is expected to grow at the highest CAGR during the forecast period"

The growth of the wafer polishing equipment market can be attributed to the increasing demand for thinner wafers to integrate microelectronics into various consumer electronic devices. The wafer polishing process creates thinner wafers compared to back-grinding alone and evens out any irregular topography and prevents warping that causes the wafers to weaken. Thus, there is an increased demand for wafer polishing equipment. Moreover, the increasing number of semiconductor fabrication plants in countries such as China and Taiwan, owing to growing investments in semiconductor manufacturing, is expected to contribute toward the growth of the wafer thinning equipment market.

"Asia Pacific to hold the largest share of the thin wafer market during the forecast period"

Asia Pacific is expected to hold the largest share of the thin wafer market during the forecast period. The Asia Pacific has witnessed large-scale adoption of smart electronic devices. This has led the consumer electronics manufacturers to launch higher-end devices in this region. The acceptance of the latest technology trends by majority of consumer electronics manufacturers have stimulated the demand for thinner wafers in Asia Pacific. In recent years, there has been a remarkable increase in the number of semiconductor fabrication plants and IC manufacturing firms in countries such as China and Taiwan, due to investments in semiconductor manufacturing this has paved way towards the growth of the thin wafer market in the Asia Pacific region.

In the process of determining and verifying the market size for several segments and subsegments gathered through secondary research, extensive primary interviews have been conducted with key industry experts in the thin wafer space. The break-up of primary participants for the report has been shown below:

- By Company Type: Tier 1 -40%, Tier 2 - 40%, and Tier 3 - 20%
- By Designation: C-level Executives - 40%, Directors -40%, and Others - 20%
- By Region: Americas -33%, Asia Pacific- 45%, EMEA -22%

The report profiles key players in the thin wafer market with their respective market ranking analysis. Prominent players profiled in this report are include Shin-Etsu Chemical Co., Ltd. (Japan), SUMCO Corporation (Japan), GlobalWafers Co., Ltd. (Taiwan), Siltronic (Germany), SK Siltron (South Korea), SUSS MicroTec (Germany), DISCO Corporation (Japan), 3M (US), and Applied Materials (US Apart from these, Mechatronic Systemtechnik (Austria), Synova (Switzerland), EV Group (Austria), Wafer Works Corporation (Taiwan), Atecom technology Co., Ltd. (Taiwan), Siltronix Silicon Technologies (France), LDK Solar (China), UniversityWafer, Inc. (US) are among a few emerging companies in the thin wafer market.

Research Coverage:

This research report categorizes global thin wafer market based on wafer size, process, technology, application and geography. The report describes the major drivers, restraints, challenges, and opportunities pertaining to the thin wafer market and forecasts the same till 2027 (including analysis of COVID-19 impact on the market). Apart from these, the report also consists of leadership mapping and analysis of all the companies included in the thin wafer ecosystem.

Key Benefits of Buying the Report

The report would help leaders/new entrants in this market in the following ways:

1. This report segments the thin wafer market comprehensively and provides the closest market size projection for all subsegments across different regions.
2. The report helps stakeholders understand the pulse of the market and provides them with information on key drivers, restraints, challenges, and opportunities for market growth.
3. This report would help stakeholders understand their competitors better and gain more insights to improve their position in the business. The competitive landscape section includes competitor ecosystem, product developments and launches, partnerships, and mergers and acquisitions.
4. The analysis of the top 28 companies, based on the market rank as well as the product footprint will help stakeholders visualize the market positioning of these key players.
5. Patent analysis, trade data, and technological trends that will shape the market in the coming years has also been covered in this report.

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