

Global Packaging Materials for GaN Power Devices Market Growth 2026-2032

<https://marketpublishers.com/r/GC3D512E453EEN.html>

Date: July 2026

Pages: 141

Price: US\$ 3,660.00 (Single User License)

ID: GC3D512E453EEN

Abstracts

The global Packaging Materials for GaN Power Devices market size is predicted to grow from US\$ 323 million in 2025 to US\$ 1277 million in 2032; it is expected to grow at a CAGR of 21.8% from 2026 to 2032.

Packaging materials for GaN power devices are functional material systems used in the assembly and packaging of gallium nitride power semiconductors and GaN based power modules. These materials are designed to provide die attachment, electrical interconnection, insulation protection, thermal conduction, mechanical support, and long term reliability for high frequency and high power density power electronics. The product scope mainly includes silver sintering materials, copper sintering materials, high thermal conductivity die attach materials, power packaging solders, leadframes, copper clips, ceramic copper clad substrates, epoxy molding compounds, silicone gels, underfill materials, encapsulants, and thermal interface materials. Their manufacturing processes involve nano metal powder preparation, paste dispersion, low temperature sintering, active metal brazing, ceramic metallization, epoxy formulation modification, silicone curing, and thermally conductive filler compounding. Key performance requirements usually include high thermal conductivity, low thermal resistance, low parasitic inductance, high temperature cycling stability, low ionic contamination, moisture resistance, insulation reliability, and stable interconnection under repeated thermal and electrical stress. These materials are mainly used in fast chargers, server power supplies, data center power systems, automotive power electronics, industrial power supplies, renewable energy converters, and other compact high efficiency power conversion systems. In 2025, the global packaging materials for GaN power devices industry had an estimated average gross margin of about 35% to 55%, and the industry weighted average price was about 120 to 350 US dollars per kilogram.

Packaging materials for GaN power devices are entering a structural upgrade phase as power semiconductor packaging moves toward higher switching frequency, higher power density, and stronger reliability requirements. The upstream supply chain mainly includes silver powder, copper powder, ceramic powders, epoxy resins, silicone resins, thermally conductive fillers, and metal substrates. The midstream segment focuses on sintering materials, die attach materials, ceramic substrates, encapsulants, molding compounds, and thermal interface materials. Downstream demand is concentrated in fast chargers, server power supplies, data center power systems, automotive power electronics, industrial power supplies, and renewable energy power conversion systems.

The competitive landscape is shaped by global material platform companies, ceramic substrate manufacturers, power packaging material suppliers, and regional specialist producers. High end silver sintering materials, low inductance interconnection materials, and high thermal conductivity ceramic substrates are still led by established international suppliers, while Chinese manufacturers are accelerating entry through domestic power semiconductor substitution, automotive qualification, and localized packaging supply chains. The main barriers are not only formulation capability, but also long reliability validation cycles, customer certification, process compatibility, and stable batch to batch manufacturing control.

Policy support for wide bandgap semiconductors, regional supply chain localization, and rising capital expenditure in electric vehicles, artificial intelligence data centers, and high efficiency power systems are strengthening demand for advanced GaN packaging materials. Future growth will gradually shift from consumer fast charging toward higher power and higher reliability applications. Product development is expected to move toward low temperature copper sintering, high thermal conductivity ceramic substrates, low thermal resistance encapsulation materials, and integrated thermal management solutions, giving the industry a strong long term growth outlook.

LP Information, Inc. (LPI) ' newest research report, the "Packaging Materials for GaN Power Devices Industry Forecast" looks at past sales and reviews total world Packaging Materials for GaN Power Devices sales in 2025, providing a comprehensive analysis by region and market sector of projected Packaging Materials for GaN Power Devices sales for 2026 through 2032. With Packaging Materials for GaN Power Devices sales broken down by region, market sector and sub-sector, this report provides a detailed analysis in US\$ millions of the world Packaging Materials for GaN Power Devices industry.

This Insight Report provides a comprehensive analysis of the global Packaging Materials for GaN Power Devices landscape and highlights key trends related to product segmentation, company formation, revenue, and market share, latest development, and M&A activity. This report also analyzes the strategies of leading global companies with a focus on Packaging Materials for GaN Power Devices portfolios and capabilities, market entry strategies, market positions, and geographic footprints, to better understand these firms' unique position in an accelerating global Packaging Materials for GaN Power Devices market.

This Insight Report evaluates the key market trends, drivers, and affecting factors shaping the global outlook for Packaging Materials for GaN Power Devices and breaks down the forecast by Function, by Application, geography, and market size to highlight emerging pockets of opportunity. With a transparent methodology based on hundreds of bottom-up qualitative and quantitative market inputs, this study forecast offers a highly nuanced view of the current state and future trajectory in the global Packaging Materials for GaN Power Devices.

This report presents a comprehensive overview, market shares, and growth opportunities of Packaging Materials for GaN Power Devices market by product type, application, key manufacturers and key regions and countries.

Segmentation by Function:

Die Attach Materials

Electrical Interconnect Materials

Substrate and Carrier Materials

Encapsulation and Protection Materials

Thermal Interface Materials

Others

Segmentation by Die Attach Technology:

Silver Sintering

Copper Sintering

High Temperature Soldering

Conductive Die Attach Adhesives

Others

Segmentation by Thermal Conductivity Level:

Ultra-high Thermal Conductivity ($>150 \text{ W/m}^2\text{K}$)

High Thermal Conductivity ($20\text{--}150 \text{ W/m}^2\text{K}$)

Medium Thermal Conductivity ($2\text{--}20 \text{ W/m}^2\text{K}$)

Low Thermal Conductivity (

Contents

1 SCOPE OF THE REPORT

- 1.1 Market Introduction
- 1.2 Years Considered
- 1.3 Research Objectives
- 1.4 Market Research Methodology
- 1.5 Research Process and Data Source
- 1.6 Economic Indicators
- 1.7 Currency Considered
- 1.8 Market Estimation Caveats

2 EXECUTIVE SUMMARY

2.1 World Market Overview

- 2.1.1 Global Packaging Materials for GaN Power Devices Annual Sales 2021-2032
- 2.1.2 World Current & Future Analysis for Packaging Materials for GaN Power Devices by Geographic Region, 2021, 2025 & 2032
- 2.1.3 World Current & Future Analysis for Packaging Materials for GaN Power Devices by Country/Region, 2021, 2025 & 2032

2.2 Packaging Materials for GaN Power Devices Segment by Function

- 2.2.1 Die Attach Materials
- 2.2.2 Electrical Interconnect Materials
- 2.2.3 Substrate and Carrier Materials
- 2.2.4 Encapsulation and Protection Materials
- 2.2.5 Thermal Interface Materials
- 2.2.6 Others
- 2.2.7 Packaging Materials for GaN Power Devices Sales by Function
 - 2.2.7.1 Global Packaging Materials for GaN Power Devices Sales Market Share by Function (2021-2026)
 - 2.2.7.2 Global Packaging Materials for GaN Power Devices Revenue and Market Share by Function (2021-2026)
 - 2.2.7.3 Global Packaging Materials for GaN Power Devices Sale Price by Function (2021-2026)

2.3 Packaging Materials for GaN Power Devices Segment by Die Attach Technology

- 2.3.1 Silver Sintering
- 2.3.2 Copper Sintering
- 2.3.3 High Temperature Soldering

2.3.4 Conductive Die Attach Adhesives

2.3.5 Others

2.3.6 Packaging Materials for GaN Power Devices Sales by Die Attach Technology

2.3.6.1 Global Packaging Materials for GaN Power Devices Sales Market Share by Die Attach Technology (2021-2026)

2.3.6.2 Global Packaging Materials for GaN Power Devices Revenue and Market Share by Die Attach Technology (2021-2026)

2.3.6.3 Global Packaging Materials for GaN Power Devices Sale Price by Die Attach Technology (2021-2026)

2.4 Packaging Materials for GaN Power Devices Segment by Thermal Conductivity Level

2.4.1 Ultra-high Thermal Conductivity ($>150 \text{ W/m}^2\text{K}$)

2.4.2 High Thermal Conductivity ($20\text{--}150 \text{ W/m}^2\text{K}$)

2.4.3 Medium Thermal Conductivity ($2\text{--}20 \text{ W/m}^2\text{K}$)

2.4.4 Low Thermal Conductivity (

List Of Tables

LIST OF TABLES

Table 1. Packaging Materials for GaN Power Devices Annual Sales CAGR by Geographic Region (2021, 2025 & 2032) & (\$ millions)

Table 2. Packaging Materials for GaN Power Devices Annual Sales CAGR by Country/Region (2021, 2025 & 2032) & (\$ millions)

Table 3. Major Players of Die Attach Materials

Table 4. Major Players of Electrical Interconnect Materials

Table 5. Major Players of Substrate and Carrier Materials

Table 6. Major Players of Encapsulation and Protection Materials

Table 7. Major Players of Thermal Interface Materials

Table 8. Major Players of Others

Table 9. Global Packaging Materials for GaN Power Devices Sales by Function (2021-2026) & (Kg)

Table 10. Global Packaging Materials for GaN Power Devices Sales Market Share by Function (2021-2026)

Table 11. Global Packaging Materials for GaN Power Devices Revenue by Function (2021-2026) & (\$ million)

Table 12. Global Packaging Materials for GaN Power Devices Revenue Market Share by Function (2021-2026)

Table 13. Global Packaging Materials for GaN Power Devices Sale Price by Function (2021-2026) & (US\$/Kg)

Table 14. Major Players of Silver Sintering

Table 15. Major Players of Copper Sintering

Table 16. Major Players of High Temperature Soldering

Table 17. Major Players of Conductive Die Attach Adhesives

Table 18. Major Players of Others

Table 19. Global Packaging Materials for GaN Power Devices Sales by Die Attach Technology (2021-2026) & (Kg)

Table 20. Global Packaging Materials for GaN Power Devices Sales Market Share by Die Attach Technology (2021-2026)

Table 21. Global Packaging Materials for GaN Power Devices Revenue by Die Attach Technology (2021-2026) & (\$ million)

Table 22. Global Packaging Materials for GaN Power Devices Revenue Market Share by Die Attach Technology (2021-2026)

Table 23. Global Packaging Materials for GaN Power Devices Sale Price by Die Attach Technology (2021-2026) & (US\$/Kg)

Table 24. Major Players of Ultra-high Thermal Conductivity (>150 W/m 2 K)

Table 25. Major Players of High Thermal Conductivity ($20\text{--}150$ W/m 2 K)

Table 26. Major Players of Medium Thermal Conductivity ($2\text{--}20$ W/m 2 K)

Table 27. Major Players of Low Thermal Conductivity (

List Of Figures

LIST OF FIGURES

- Figure 1. Picture of Packaging Materials for GaN Power Devices
- Figure 2. Packaging Materials for GaN Power Devices Report Years Considered
- Figure 3. Research Objectives
- Figure 4. Research Methodology
- Figure 5. Research Process and Data Source
- Figure 6. Global Packaging Materials for GaN Power Devices Sales Growth Rate 2021-2032 (Kg)
- Figure 7. Global Packaging Materials for GaN Power Devices Revenue Growth Rate 2021-2032 (\$ millions)
- Figure 8. Packaging Materials for GaN Power Devices Sales by Geographic Region (2021, 2025 & 2032) & (\$ millions)
- Figure 9. Packaging Materials for GaN Power Devices Sales Market Share by Country/Region (2025)
- Figure 10. Packaging Materials for GaN Power Devices Sales Market Share by Country/Region (2021, 2025 & 2032)
- Figure 11. Product Picture of Die Attach Materials
- Figure 12. Product Picture of Electrical Interconnect Materials
- Figure 13. Product Picture of Substrate and Carrier Materials
- Figure 14. Product Picture of Encapsulation and Protection Materials
- Figure 15. Product Picture of Thermal Interface Materials
- Figure 16. Product Picture of Others
- Figure 17. Global Packaging Materials for GaN Power Devices Sales Market Share by Function in 2026
- Figure 18. Global Packaging Materials for GaN Power Devices Revenue Market Share by Function (2021-2026)
- Figure 19. Product Picture of Silver Sintering
- Figure 20. Product Picture of Copper Sintering
- Figure 21. Product Picture of High Temperature Soldering
- Figure 22. Product Picture of Conductive Die Attach Adhesives
- Figure 23. Product Picture of Others
- Figure 24. Global Packaging Materials for GaN Power Devices Sales Market Share by Die Attach Technology in 2026
- Figure 25. Global Packaging Materials for GaN Power Devices Revenue Market Share by Die Attach Technology (2021-2026)
- Figure 26. Product Picture of Ultra-high Thermal Conductivity (>150 W/m²K)

Figure 27. Product Picture of High Thermal Conductivity (20?150 W/m?K)

Figure 28. Product Picture of Medium Thermal Conductivity (2?20 W/m?K)

Figure 29. Product Picture of Low Thermal Conductivity (

I would like to order

Product name: Global Packaging Materials for GaN Power Devices Market Growth 2026-2032

Product link: <https://marketpublishers.com/r/GC3D512E453EEN.html>

Price: US\$ 3,660.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/GC3D512E453EEN.html>