+357 96 030922
info@marketpublishers.com

Global LED Phosphors Supply, Demand and Key Producers, 2026-2032

https://marketpublishers.com/r/G2C9D27672C9EN.html
Date: June 2026
Pages: 143
Price: US$ 4,480.00 (Single User License)
ID: G2C9D27672C9EN

Abstracts

The global LED Phosphors market size is expected to reach $ 599 million by 2032, rising at a market growth of 6.3% CAGR during the forecast period (2026-2032).

LED phosphors are luminescent materials that convert the blue or ultraviolet light emitted from LED chips into visible light of longer wavelengths, enabling the generation of white light and various color temperatures. These inorganic compounds, typically rare-earth-doped garnets (e.g., YAG:Ce??), silicates, nitrides, or oxynitrides, absorb high-energy photons and re-emit them at lower energies through photoluminescence. The combination of a blue LED chip with a yellow-emitting phosphor (YAG:Ce) remains the dominant architecture for white LEDs, while advanced phosphor blends employing red and green emitters enable high color rendering index and wide color gamut for display applications. Key phosphor families include yttrium aluminum garnet-based yellow phosphors, nitride red phosphors for high-CRI lighting, narrow-band green phosphors (?-sialon) for LCD backlighting, and quantum dot phosphors for ultra-wide color gamut displays. From a value chain perspective, upstream includes rare earth oxide suppliers (yttrium, cerium, europium, lutetium, gallium) and material synthesis equipment providers; midstream involves solid-state reaction or sol-gel synthesis, milling, surface coating, particle size classification, and quality testing (quantum efficiency, thermal quenching, chromaticity coordinates); downstream demand spans LED lighting (general illumination, automotive lighting, horticultural lighting), display backlight units (LCD TVs, monitors, tablets, smartphones), specialty lighting (medical, stage), and micro-LED applications. In 2025, the average selling price is approximately US$155 per kg, global sales volume is about 2,452k kg, and gross margins generally range from 25% to 40%, driven by rare earth raw material costs (yttrium, cerium, europium, gallium), synthesis process complexity, and stringent particle size and efficiency requirements for display-grade phosphors.

+357 96 030922
info@marketpublishers.com

The LED phosphors market is experiencing a mature but differentiated growth phase driven by technological evolution across lighting and display applications. General lighting remains the largest volume consumer, but value growth increasingly comes from high-performance display backlighting and specialty phosphors. The transition from traditional lighting to LEDs has largely completed in developed markets, shifting focus toward phosphor innovation for enhanced color quality and energy efficiency.

Display Backlighting as the High-Value Segment

The demand for wide color gamut displays in premium televisions, monitors, and mobile devices has driven the adoption of narrow-band green and red phosphors. Green ?-sialon phosphors combined with fluoride-based red phosphors (e.g., KSF/Mn??) achieve BT.2020 color gamut coverage exceeding 90%, meeting the requirements of 4K and 8K displays. The mini-LED and micro-LED display roadmap continues to push phosphor performance requirements toward smaller particle sizes (sub-10?m) and higher thermal stability.

Quantum Dot Phosphors as a Disruptive Technology

Quantum dot phosphors, based on cadmium selenide or indium phosphide core-shell structures, offer ultra-narrow emission spectra and tunable peak wavelengths, enabling the widest color gamut currently achievable. While QD film technology has gained adoption in high-end TVs, the cost premium over conventional phosphors remains significant. Cadmium-free quantum dots are gaining regulatory acceptance in European markets, broadening addressable applications.

This report studies the global LED Phosphors production, demand, key manufacturers, and key regions.

This report is a detailed and comprehensive analysis of the world market for LED Phosphors and provides market size (US$ million) and Year-over-Year (YoY) Growth, considering 2025 as the base year. This report explores demand trends and competition, as well as details the characteristics of LED Phosphors that contribute to its increasing demand across many markets.

Highlights and key features of the study
Global LED Phosphors total production and demand, 2021-2032, (Tons)
Global LED Phosphors total production value, 2021-2032, (USD Million)

+357 96 030922
info@marketpublishers.com

Global LED Phosphors production by region & country, production, value, CAGR, 2021-2032, (USD Million) & (Tons), (based on production site)
Global LED Phosphors consumption by region & country, CAGR, 2021-2032 & (Tons)
U.S. VS China: LED Phosphors domestic production, consumption, key domestic manufacturers and share
Global LED Phosphors production by manufacturer, production, price, value and market share 2021-2026, (USD Million) & (Tons)
Global LED Phosphors production by Type, production, value, CAGR, 2021-2032, (USD Million) & (Tons)
Global LED Phosphors production by Application, production, value, CAGR, 2021-2032, (USD Million) & (Tons)

This report profiles key players in the global LED Phosphors market based on the following parameters - company overview, production, value, price, gross margin, product portfolio, geographical presence, and key developments. Key companies covered as a part of this study include Nichia Corporation, Mitsubishi Chemical Corporation, Intematix Corporation, Seoul Semiconductor Co., Ltd., DENKA Company Limited, Shin-Etsu Chemical Co., Ltd., Grirem Advanced Materials Co., Ltd., Yuelong New Materials Co., Ltd., Jiangmen Kanhoo Industry Co., Ltd., Shandong Inov New Material Co., Ltd., etc.

This report also provides key insights about market drivers, restraints, opportunities, new product launches or approvals.

Stakeholders would have ease in decision-making through various strategy matrices used in analyzing the World LED Phosphors market

Detailed Segmentation:

Each section contains quantitative market data including market by value (US$ Millions), volume (production, consumption) & (Tons) and average price (US$/Kg) by manufacturer, by Type, and by Application. Data is given for the years 2021-2032 by year with 2025 as the base year, 2026 as the estimate year, and 2027-2032 as the forecast year.

Global LED Phosphors Market, By Region:

United States

+357 96 030922
info@marketpublishers.com

China

Europe

Japan

South Korea

ASEAN

India

Rest of World

Global LED Phosphors Market, Segmentation by Type:

Red

Yellow

Green

Other

Global LED Phosphors Market, Segmentation by Excitation Source:

Blue LED (440-470 nm)

UV LED (370-410 nm)

Laser Diode

Global LED Phosphors Market, Segmentation by Particle Size:

Coarse (>20 ?m)

+357 96 030922
info@marketpublishers.com

Standard (10-20 ?m)

Fine (5-10 ?m)

Submicron (

+357 96 030922
info@marketpublishers.com

Contents

+357 96 030922
info@marketpublishers.com

4 UNITED STATES VS CHINA VS REST OF THE WORLD

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

7 MARKET ANALYSIS BY PARTICLE SIZE

+357 96 030922
info@marketpublishers.com

List Of Tables

LIST OF TABLES

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

List Of Figures

LIST OF FIGURES

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: Global LED Phosphors Supply, Demand and Key Producers, 2026-2032

Product link: https://marketpublishers.com/r/G2C9D27672C9EN.html

Price: US$ 4,480.00 (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/G2C9D27672C9EN.html