

Thermal Management Technologies Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2023-2028

<https://marketpublishers.com/r/T38A2A488DA8EN.html>

Date: November 2023

Pages: 145

Price: US\$ 2,499.00 (Single User License)

ID: T38A2A488DA8EN

Abstracts

The global thermal management technologies market size reached US\$ 12.7 Billion in 2022. Looking forward, IMARC Group expects the market to reach US\$ 20.0 Billion by 2028, exhibiting a growth rate (CAGR) of 7.9% during 2022-2028.

Thermal management technologies are the systems used for monitoring and managing the excessive heat generated from electronic devices and circuitry. It involves the use of various substrate within the electronic devices for efficient dissipation of heat. Some of the commonly used thermal management materials include adhesive and non-adhesive materials, such as thermal cushions, gap fillers, phase change materials (PCMs) and oil. They are utilized in various conduction, convection, advanced and hybrid cooling systems of consumer electronics, servers and data centers during installation and calibration. They aid in preventing failures and enhancing the operational life of the equipment and find extensive applications across various industries, such as automotive, defense, aerospace and telecommunication.

Thermal Management Technologies Market Trends:

Significant growth in the electronic and electrical industries across the globe is one of the key factors creating a positive outlook for the market. With improvements in the manufacturing technologies of consumer electronics, there is an increasing demand for miniaturized devices with enhanced power densities. This, in turn, has positively impacted the demand for thermal management technologies for minimizing the high heat flux generated by these devices. In line with this, the widespread adoption of thermal management technologies in various automobiles and electric and hybrid vehicles is also contributing to the growth of the market. Additionally, technological advancements, such as the development of jet impingement mechanisms, cold plates, heat vapor chambers and cool chips, are acting as other growth-inducing factors. These innovative solutions are used as active cooling agents and are embedded with micro

fluids and multi-phase heat transfer technologies to improve thermal resistance and performance of computers and other power-intensive devices. Other factors, including rising expenditure capacities, along with extensive research and development (R&D) activities are anticipated to drive the market toward growth.

Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each sub-segment of the global thermal management technologies market report, along with forecasts at the global, regional and country level from 2023-2028. Our report has categorized the market based on product and application.

Breakup by Product:

Hardware

Software

Interface

Substrates

Breakup by Application:

Computers

Consumer Electronics

Telecommunication

Automotive

Renewable Energy

Others

Breakup by Region:

North America

United States

Canada

Asia-Pacific

China

Japan

India

South Korea

Australia

Indonesia

Others

Europe

Germany

France

United Kingdom

Italy

Spain

Russia

Others

Latin America

Brazil

Mexico

Others

Middle East and Africa

Competitive Landscape:

The competitive landscape of the industry has also been examined along with the profiles of the key players being Advanced Cooling Technologies Inc., Autoneum Holding AG, Gentherm Inc., Heatex Inc. (Madison Industries), Henkel AG & Co. KGaA, Honeywell International Inc., Laird Thermal Systems Inc., Momentive Performance Materials Inc., Parker-Hannifin Corp. and Thermal Management Technologies.

Key Questions Answered in This Report

1. What was the size of the global thermal management technologies market in 2022?
2. What is the expected growth rate of the global thermal management technologies market during 2023-2028?
3. What are the key factors driving the global thermal management technologies market?
4. What has been the impact of COVID-19 on the global thermal management technologies market?
5. What is the breakup of the global thermal management technologies market based on the product?
6. What is the breakup of the global thermal management technologies market based on the application?
7. What are the key regions in the global thermal management technologies market?
8. Who are the key players/companies in the global thermal management technologies market?

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