

Circular Tire Recycling Market Forecasts to 2034 – Global Analysis By Processing Scale (Small-Scale Local Collection and Shredding Centers, Medium-Scale Regional Processing Plants, Large-Scale Industrial Pyrolysis/Devulcanization Facilities and Mobile and Portable Processing Units), Tire Source, Technology, End Product, Application, End User and By Geography

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Abstracts

According to Statistics MRC, the Global Circular Tire Recycling Market is accounted for \$3.5 billion in 2026 and is expected to reach \$6.8 billion by 2034 growing at a CAGR of 8.6% during the forecast period. Circular tire recycling refers to advanced industrial processes designed to recover valuable materials from end-of-life vehicle tires, transforming waste into reusable resources. These systems function by mechanically grinding, thermally devolatilizing, or chemically devulcanizing rubber compounds to separate carbon black, steel wire, and textile fibers. They encompass pyrolysis plants, ambient grinding facilities, and cryogenic processing units that enable the production of crumb rubber, recovered carbon black, and tire-derived fuel. Their application ensures sustainable waste management, reduces landfill dependency, and supports the transition toward a circular automotive economy.

Market Dynamics:

Driver:

Escalating Sustainable Waste Management

The escalating global emphasis on sustainable waste management compels municipalities and industries to adopt circular tire recycling technologies offering environmentally friendly alternatives to landfilling. Growing regulatory pressure to reduce rubber waste accumulation and minimize environmental contamination is accelerating the integration of these processing systems into municipal waste frameworks. This transition is supported by advancements in pyrolysis technology, which enhance material recovery yields and operational efficiency. Consequently, governments are investing in specialized recycling infrastructure to achieve compliance with stringent environmental mandates while optimizing resource recovery.

Restraint:

High Capital and Operational Expenditures

The substantial expenses associated with developing and deploying advanced circular tire recycling facilities represent a significant barrier to widespread commercial adoption. Constructing large-scale pyrolysis or devulcanization plants often requires complex engineering processes and sophisticated emission control techniques, which escalate overall capital expenditures. Furthermore, the variability in tire composition and contamination levels limits the operational consistency of recovered material outputs. These factors collectively constrain market expansion, particularly for smaller enterprises with limited financial resources and technical expertise.

Opportunity:

Expansion in Recovered Carbon Black (rCB)

The recovered carbon black (rCB) sector presents substantial growth opportunities for circular tire recycling manufacturers due to increasing demand for sustainable rubber reinforcement materials. Advanced devulcanization and pyrolysis technologies offer a highly effective pathway to produce high-quality rCB without virgin fossil fuel extraction, utilizing end-of-life tires as primary inputs. As global investments in green manufacturing expand and regulatory agencies favor circular material pathways, the adoption of advanced tire recycling solutions is expected to surge significantly.

Threat:

Competition from Virgin Material Production

The continuous reliance on virgin rubber and carbon black production poses a considerable threat to the circular tire recycling market. Conventional petrochemical

synthesis often exhibits superior short-term cost-effectiveness under current market conditions and can be more economically viable for manufacturers with established supply chains. Additionally, the rapid advancement of synthetic rubber formulations is enhancing the performance of conventional materials. This competitive pressure may hinder market penetration, particularly where initial recycling infrastructure investment is a primary operational consideration.

Covid-19 Impact:

The pandemic initially disrupted tire recycling operations and delayed facility upgrades due to supply chain constraints and reduced vehicle usage. However, the subsequent surge in e-commerce deliveries accelerated the generation of commercial tire waste, reinforcing the need for efficient disposal solutions. Post-pandemic, the heightened focus on supply chain resilience and corporate sustainability has reinforced long-term investments in circular tire recycling technologies, driving robust market recovery and expansion across diverse waste management sectors globally.

The Pyrolysis and Thermal Devolatilization segment is expected to be the largest during the forecast period

The Pyrolysis and Thermal Devolatilization segment is expected to account for the largest market share during the forecast period, due to its unparalleled material recovery capabilities and widespread applicability across diverse tire processing environments. Pyrolysis systems offer exceptional operational reliability and operate effectively in complex thermal conditions, which significantly reduces landfill dependency and maximizes the extraction of valuable byproducts like synthetic gas and recovered carbon black. As industries increasingly prioritize scalable and cost-effective resource recovery methods, the demand for specialized pyrolysis facilities continues to surge, thereby solidifying their dominant market position.

The Recovered Carbon Black (rCB) segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the Recovered Carbon Black (rCB) segment is predicted to witness the highest growth rate, driven by rapid advancements in material purification and rubber reinforcement engineering. These technologies enable the precise refinement of pyrolysis outputs to produce highly specialized and robust rCB tailored for specific automotive and industrial applications. The ability to enhance material purity, operational scalability, and environmental compliance through advanced rCB

processing significantly improves process economics, accelerating commercial adoption globally.

Region with largest share:

During the forecast period, the North America region is expected to hold the largest market share, due to the presence of well-established automotive industries and advanced waste management infrastructure that heavily utilize circular tire recycling technologies. The region benefits from substantial technology investments, robust intellectual property protection, and supportive government policies promoting sustainable waste diversion and circular economy principles. Furthermore, the early adoption of advanced recycling facilities by key industry players in the United States and Canada reinforces the region's dominant position in the global landscape.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR, due to rapid automotive growth and expanding waste management sectors in emerging economies. Countries such as China, India, and Japan are increasingly investing in recycling infrastructure and sustainable material processing technologies to meet growing domestic environmental demands and stringent waste disposal regulations. Additionally, favorable government policies, rising foreign direct investment, and the availability of cost-effective processing resources are collectively driving the accelerated adoption of circular tire recycling across the region.

Key players in the market

Some of the key players in Circular Tire Recycling Market include Michelin (via Enviro), Bridgestone Corporation, Pyrolyx AG, Lehigh Technologies, Delta-Energy Group, Scandinavian Enviro Systems, Klean Industries, Eldan Recycling, Granutech-Saturn Systems, Cirtex, Wastech Engineering, Recycled Tire Systems, Liberty Tire Recycling, TIRECYCLE, Genan, Evonik Industries (Wolff Walsrode), Carbon Black Industries, and Pyrum Innovations AG.

Key Developments:

In September 2026, Michelin (via Enviro) launched a next-generation pyrolysis processing facility, achieving a thirty percent improvement in recovered carbon black purity while significantly reducing energy consumption requirements for global tire

manufacturing operations.

In August 2026, Bridgestone Corporation expanded its circular recycling capacity through a strategic partnership with a leading materials science firm, enabling the scalable deployment of novel devulcanization modules for sustainable rubber product synthesis.

In July 2026, Pyrolyx AG secured a major supply agreement to provide customized rCB for a prominent automotive parts manufacturer, facilitating the efficient integration of advanced recycled materials into next-generation vehicle component ecosystems globally.

Processing Scales Covered:

Small-Scale Local Collection and Shredding Centers

Medium-Scale Regional Processing Plants

Large-Scale Industrial Pyrolysis/Devulcanization Facilities

Mobile and Portable Processing Units

Tire Sources Covered:

Passenger Car Tires

Truck and Bus Radial (TBR) Tires

Off-the-Road (OTR) and Mining Tires

Two-Wheeler and Motorcycle Tires

Aircraft and Specialty Tires

Technologies Covered:

Mechanical Grinding and Crumbing

Pyrolysis and Thermal Devolatilization

Devulcanization and Reclaiming

Cryogenic Grinding

Ambient Grinding

End Products Covered:

Crumb Rubber and Rubber Powder

Recovered Carbon Black (rCB)

Tire-Derived Fuel (TDF)

Pyrolysis Oil and Synthetic Gas

Recovered Steel Wire and Textile Fiber

Applications Covered:

Asphalt and Road Construction

New Tire and Rubber Product Manufacturing

Sports Surfaces, Playgrounds, and Flooring

Industrial Fuel and Energy Generation

Molded Rubber Goods and Automotive Parts

End Users Covered:

Tire Manufacturers (OEMs)

Construction and Infrastructure Companies

Energy, Cement, and Industrial Plants

Sports Facility Developers and Municipalities

Waste Management and Specialized Recycling Firms

Other End Users

Regions Covered:

North America

United States

Canada

Mexico

Europe

United Kingdom

Germany

France

Italy

Spain

Netherlands

Belgium

Sweden

Switzerland

Poland

Rest of Europe

Asia Pacific

China

Japan

India

South Korea

Australia

Indonesia

Thailand

Malaysia

Singapore

Vietnam

Rest of Asia Pacific

South America

Brazil

Argentina

Colombia

Chile

Peru

Rest of South America

Rest of the World (RoW)

Middle East

Saudi Arabia

United Arab Emirates

Qatar

Israel

Rest of Middle East

Africa

South Africa

Egypt

Morocco

Rest of Africa

What our report offers:

Market share assessments for the regional and country-level segments

Strategic recommendations for the new entrants

Covers Market data for the years 2023, 2024, 2025, 2026, 2027, 2028, 2030, 2032 and 2034

Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)

Strategic recommendations in key business segments based on the market estimations

Competitive landscaping mapping the key common trends

Company profiling with detailed strategies, financials, and recent developments

Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

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