

## **Global Fluoro Elastomers - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)**

Market Report | 2025-07-01 | 120 pages | Mordor Intelligence

### **AVAILABLE LICENSES:**

- Single User License \$4750.00
- Team License (1-7 Users) \$5250.00
- Site License \$6500.00
- Corporate License \$8750.00

### **Report description:**

Global Fluoro Elastomers Market Analysis

The Global Fluoro Elastomers Market size is estimated at USD 1.75 billion in 2025, and is expected to reach USD 2.35 billion by 2030, at a CAGR of 6.07% during the forecast period (2025-2030). A sustained shift toward battery-electric vehicles, the proliferation of small-satellite constellations, and relentless scaling in semiconductor fabrication keep demand for high-performance seals on an upward trajectory. Because carbon-fluorine bonds resist extreme temperatures, aggressive chemicals, and rapid thermal cycling, fluoroelastomers remain the default choice where failure is not an option. Automakers now specify Viton and Kalrez compounds in battery-coolant circuits to prevent dielectric fluid leakage, while chip manufacturers rely on low-outgassing perfluoroelastomers to protect 3 nm process nodes. At the same time, exploration of hotter, deeper oil reservoirs expands high-temperature sealing needs in energy operations. Proposed PFAS restrictions in Europe inject regulatory uncertainty, yet they also accelerate investment in non-fluorosurfactant production technologies that preserve performance advantages without legacy chemistries.

Global Fluoro Elastomers Market Trends and Insights

EV Thermal-Management Seal Demand Surge

Electric-vehicle battery packs rely on sophisticated liquid-cooling loops that circulate dielectric fluids able to dissipate heat without risking short circuits. Seals made from Viton and similar compounds limit swelling to less than 5% after 1 000 hours in

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: [support@scotts-international.com](mailto:support@scotts-international.com)

[www.scotts-international.com](http://www.scotts-international.com)

polyalphaolefin-based coolants, outperforming silicone and EPDM alternatives. Prestone's low-conductivity coolant formulated under China's GB29743.2 standard illustrates how chemistry updates push sealing specifications to new thresholds, Automakers have extended battery warranties to 10 years, so perfluoroelastomers that maintain tensile strength below ?30 C and above 150 C become essential. As global EV production climbs past 25 million units in 2025, OEM sourcing teams lock in multiyear supply contracts for high-purity perfluoroelastomer compounds, anchoring a key growth pillar for the fluoroelastomers market.

#### Growing Demand for Aerospace & New Space Propulsion Seals

Commercial launch providers, satellite manufacturers, and defense primes specify perfluoroelastomer seals that survive propellants such as hydrazine or liquid oxygen while cycling from ?200 C to +300 C. DuPont's Kalrez grades now guarantee chemical compatibility with more than 1 800 fluids, reducing mission-critical leak paths in spacecraft life-support lines and cryogenic feed systems . In aviation, lightweight turbochargers and sustainable-aviation-fuel delivery modules increasingly rely on Viton to curb maintenance frequency. Each reusable launch vehicle can contain over 1 200 individual O-rings, multiplying material demand as launch cadence accelerates. Consequently, aerospace programs amplify the long-run pull on the fluoroelastomers market.

#### High Material & Compounding Cost

Fluoroelastomer production relies on fluorinated monomers that trade at premiums standard petrochemical feedstocks. Tight process control and proprietary curing packages push conversion costs further, limiting uptake in low-margin components. Global natural rubber shortages extend price pressures across the wider elastomer landscape, reinforcing cost sensitivity even where performance benefits are clear-cut. To counterbalance, suppliers emphasize life-cycle savings: one gearbox seal rated for 10 000 operating hours often replaces two or three NBR equivalents. Halogen-free ethylene-acrylic alternatives such as Vamac creep into mid-temperature applications, compressing potential volume growth for the fluoroelastomers market.

Other drivers and restraints analyzed in the detailed report include:

Increasing Requirement for Semiconductor Process Seals / Growing Utilization in the Oil and Gas Industry / Feedstock Supply Volatility /

For complete list of drivers and restraints, kindly check the Table Of Contents.

#### Segment Analysis

Fluorocarbon elastomers retained 61.59% of the global fluoroelastomers market share in 2024, buoyed by entrenched use in automotive fuel-line connectors, refinery gaskets, and general industrial equipment. Their broad processing window helps component suppliers meet mass-production takt times without resorting to exotic tooling. Volume leadership, however, does not equate to highest growth. Perfluoroelastomers expand at a 7.09% CAGR through 2030, catalyzed by semiconductor cleanrooms and reusable launch vehicles that push sealing specifications past traditional fluorocarbon limits. This growth vector translates to a perfluoroelastomer segment contribution of roughly USD 580 million to the overall fluoroelastomers market size by the end of the decade.

Demand acceleration also stems from novel manufacturing methods. Solvay's Tecnoflon NFS process eliminates PFAS surfactants yet delivers identical compression-set retention, addressing European policy uncertainty without sacrificing performance . As large fabs simulate chemical permeation down to parts-per-trillion thresholds, non-contaminating perfluoroelastomers gain value over lower-cost counterparts. Meanwhile, fluorosilicone elastomers hold a smaller niche but remain indispensable in aerospace environmental control systems where ?60 C flexibility meets jet-fuel resistance. Suppliers continue tailoring bisphenol-cure

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: [support@scotts-international.com](mailto:support@scotts-international.com)

[www.scotts-international.com](http://www.scotts-international.com)

systems to enhance modulus at altitude pressures, protecting a steady revenue stream inside the broader fluoroelastomers market.

The Fluoro Elastomer Market Report Segments the Industry by Product Type (Fluorocarbon Elastomers, Fluorosilicone Elastomers, Perfluoroelastomers ), Application (Diaphragms, Valves, O-Rings, Seals, and Sealants, Other Applications), End-User Industry (Automotive, Aerospace, and More), and Geography (Asia-Pacific, North America, Europe, and More). The Market Forecasts are Provided in Terms of Value (USD).

## Geography Analysis

Asia-Pacific dominated the global fluoroelastomers market in 2024 with 46.05% revenue share, and regional demand is projected to rise at a 7.12% CAGR through 2030. China's push for semiconductor self-sufficiency drives sustained investment in 12-inch fabs, each requiring thousands of high-purity O-rings with single-digit ppm outgassing specifications. India's automotive reforms, including PLI incentives for local battery manufacturing, encourage domestic production of EV-grade coolant seals. Gujarat Fluorochemicals has committed USD 6 billion over the next four years to expand battery-chemical capacity, signalling long-term regional integration of fluoropolymer supply chains.

North America ranks second, buoyed by mature aerospace programs, shale-oil activity, and onshoring of advanced logic foundries. The CHIPS and Science Act accelerates regional wafer capacity, translating into near-term spikes in perfluoroelastomer consumption. Additionally, US deepwater developments in the Gulf of Mexico reinforce demand for HPHT-rated sealing solutions. Europe's share faces pressure from prospective PFAS bans that could restrict certain fluorinated intermediates. Manufacturers such as James Walker publicly advocate for application-based exemptions while simultaneously piloting PFAS-free compounds for moderate-duty services.

Smaller regional clusters add incremental growth. South America's pre-salt exploration programs necessitate high-performance fluoroelastomer isolation valves, whereas the Middle East targets hydrogen and ammonia export infrastructure that benefits from chemical-resistant sealing materials. Although these regions combined account for less than 10% of current fluoroelastomers market revenue, their multiyear capital-project pipelines suggest a notable contribution to volume upside by 2030.

## List of Companies Covered in this Report:

3M / AGC Chemicals Americas / DAIKIN INDUSTRIES, Ltd. / DuPont / Eagle Elastomer Inc. / Freudenberg Sealing Technologies / GARLOCK, AN ENPRO COMPANY. / Gujarat Fluorochemicals Limited / HaloPolymer / James Walker / KUREHA CORPORATION / LANXESS / NOK CORPORATION / Syensqo / The Chemours Company / Trp Polymer Solutions /

## Additional Benefits:

<ul> The market estimate (ME) sheet in Excel format /  
3 months of analyst support / </ul>

## Table of Contents:

- 1 Introduction
  - 1.1 Study Assumptions and Market Definition
  - 1.2 Scope of the Study
- 2 Research Methodology

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

### 3 Executive Summary

#### 4 Market Landscape

##### 4.1 Market Overview

##### 4.2 Market Drivers

###### 4.2.1 Surge in Demand for Thermal-Management Seal

###### 4.2.2 Growing Demand for Aerospace and New Space Propulsion Seals

###### 4.2.3 Increasing Requirement for Semiconductor Process Seals

###### 4.2.4 Growing Utilization in the Oil and Gas Industry

###### 4.2.5 Expansion in Renewable Energy Infrastructure

##### 4.3 Market Restraints

###### 4.3.1 High Material and Compounding Cost

###### 4.3.2 Feedstock Supply Volatility

###### 4.3.3 Circular Economy Recycling Mandates

##### 4.4 Value Chain Analysis

##### 4.5 Porter's Five Forces

###### 4.5.1 Bargaining Power of Suppliers

###### 4.5.2 Bargaining Power of Buyers

###### 4.5.3 Threat of New Entrants

###### 4.5.4 Threat of Substitutes

###### 4.5.5 Competitive Rivalry

#### 5 Market Size and Growth Forecasts (Value)

##### 5.1 By Product Type

###### 5.1.1 Fluorocarbon Elastomers

###### 5.1.2 Fluorosilicone Elastomers

###### 5.1.3 Perfluoroelastomers

##### 5.2 By Application

###### 5.2.1 O-Rings, Seals and Sealants

###### 5.2.2 Diaphragms

###### 5.2.3 Valves

###### 5.2.4 Other Applications (Hoses and Tubes, etc.)

##### 5.3 By End-user Industry

###### 5.3.1 Automotive

###### 5.3.2 Aerospace

###### 5.3.3 Oil and Gas

###### 5.3.4 Industrial

###### 5.3.5 Other End-user Industries (Semiconductor and Electronics, etc.)

##### 5.4 By Geography

###### 5.4.1 Asia-Pacific

###### 5.4.1.1 China

###### 5.4.1.2 Japan

###### 5.4.1.3 India

###### 5.4.1.4 South Korea

###### 5.4.1.5 Rest of Asia-Pacific

###### 5.4.2 North America

###### 5.4.2.1 United States

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: [support@scotts-international.com](mailto:support@scotts-international.com)

[www.scotts-international.com](http://www.scotts-international.com)

- 5.4.2.2 Canada
- 5.4.2.3 Mexico
- 5.4.3 Europe
  - 5.4.3.1 Germany
  - 5.4.3.2 United Kingdom
  - 5.4.3.3 France
  - 5.4.3.4 Italy
  - 5.4.3.5 Rest of Europe
- 5.4.4 South America
  - 5.4.4.1 Brazil
  - 5.4.4.2 Argentina
  - 5.4.4.3 Rest of South America
- 5.4.5 Middle East and Africa
  - 5.4.5.1 Saudi Arabia
  - 5.4.5.2 South Africa
  - 5.4.5.3 Rest of Middle East and Africa

## 6 Competitive Landscape

### 6.1 Market Concentration

### 6.2 Strategic Moves

### 6.3 Market Share(%) / Ranking Analysis

6.4 Company Profiles (includes Global level Overview, Market level overview, Core Segments, Financials as available, Strategic Information, Market Rank/Share for key companies, Products and Services, and Recent Developments)

#### 6.4.1 3M

#### 6.4.2 AGC Chemicals Americas

#### 6.4.3 DAIKIN INDUSTRIES, Ltd.

#### 6.4.4 DuPont

#### 6.4.5 Eagle Elastomer Inc.

#### 6.4.6 Freudenberg Sealing Technologies

#### 6.4.7 GARLOCK, AN ENPRO COMPANY.

#### 6.4.8 Gujarat Fluorochemicals Limited

#### 6.4.9 HaloPolymer

#### 6.4.10 James Walker

#### 6.4.11 KUREHA CORPORATION

#### 6.4.12 LANXESS

#### 6.4.13 NOK CORPORATION

#### 6.4.14 Syensqo

#### 6.4.15 The Chemours Company

#### 6.4.16 Trp Polymer Solutions

## 7 Market Opportunities and Future Outlook

### 7.1 White-space and Unmet-need Assessment

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

**Global Fluoro Elastomers - Market Share Analysis, Industry Trends & Statistics,  
Growth Forecasts (2025 - 2030)**

Market Report | 2025-07-01 | 120 pages | Mordor Intelligence

To place an Order with Scotts International:

- Print this form
- Complete the relevant blank fields and sign
- Send as a scanned email to support@scotts-international.com

**ORDER FORM:**

Select license	License	Price
	Single User License	\$4750.00
	Team License (1-7 Users)	\$5250.00
	Site License	\$6500.00
	Corporate License	\$8750.00
		VAT
		Total

\*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

\*\* VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*	<input type="text"/>	Phone*	<input type="text"/>
First Name*	<input type="text"/>	Last Name*	<input type="text"/>
Job title*	<input type="text"/>		
Company Name*	<input type="text"/>	EU Vat / Tax ID / NIP number*	<input type="text"/>
Address*	<input type="text"/>	City*	<input type="text"/>
Zip Code*	<input type="text"/>	Country*	<input type="text"/>
		Date	<input type="text" value="2026-03-01"/>
		Signature	

**Scotts International. EU Vat number: PL 6772247784**

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

