

# Global PP Melt Blown Nonwoven Market Growth 2023-2029

https://marketpublishers.com/r/G979B81E50C9EN.html

Date: February 2023

Pages: 121

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

ID: G979B81E50C9EN

# **Abstracts**

The report requires updating with new data and is sent in 48 hours after order is placed.

PP Meltblown Nonwoven Fabric is made up of Polypropylene and its fiber diameter can be 1 to 5 microns with excellent oil absorption, heat insulation, filtration, and shielding capacity and properties.

LPI (LP Information)' newest research report, the "PP Melt Blown Nonwoven Industry Forecast" looks at past sales and reviews total world PP Melt Blown Nonwoven sales in 2022, providing a comprehensive analysis by region and market sector of projected PP Melt Blown Nonwoven sales for 2023 through 2029. With PP Melt Blown Nonwoven sales broken down by region, market sector and sub-sector, this report provides a detailed analysis in US\$ millions of the world PP Melt Blown Nonwoven industry.

This Insight Report provides a comprehensive analysis of the global PP Melt Blown Nonwoven 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 PP Melt Blown Nonwoven portfolios and capabilities, market entry strategies, market positions, and geographic footprints, to better understand these firms' unique position in an accelerating global PP Melt Blown Nonwoven market.

This Insight Report evaluates the key market trends, drivers, and affecting factors shaping the global outlook for PP Melt Blown Nonwoven and breaks down the forecast by type, 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 PP Melt Blown Nonwoven.

The global PP Melt Blown Nonwoven market size is projected to grow from US\$ million in 2022 to US\$ million in 2029; it is expected to grow at a CAGR of % from 2023 to 2029.

United States market for PP Melt Blown Nonwoven is estimated to increase from US\$ million in 2022 to US\$ million by 2029, at a CAGR of % from 2023 through 2029.

China market for PP Melt Blown Nonwoven is estimated to increase from US\$ million in 2022 to US\$ million by 2029, at a CAGR of % from 2023 through 2029.

Europe market for PP Melt Blown Nonwoven is estimated to increase from US\$ million in 2022 to US\$ million by 2029, at a CAGR of % from 2023 through 2029.

Global key PP Melt Blown Nonwoven players cover Berry Global, Mogul, Kimberly-Clark, Monadnock Non-Woven, Toray, Fiberweb, Freudenberg, Don & Low and PFNonwovens, etc. In terms of revenue, the global two largest companies occupied for a share nearly % in 2022.

This report presents a comprehensive overview, market shares, and growth opportunities of PP Melt Blown Nonwoven market by product type, application, key manufacturers and key regions and countries.

Market Segmentation:

Segmentation by type

Less than 2 Microns

2 - 5 Microns

Bigger than 5 Microns

Segmentation by application

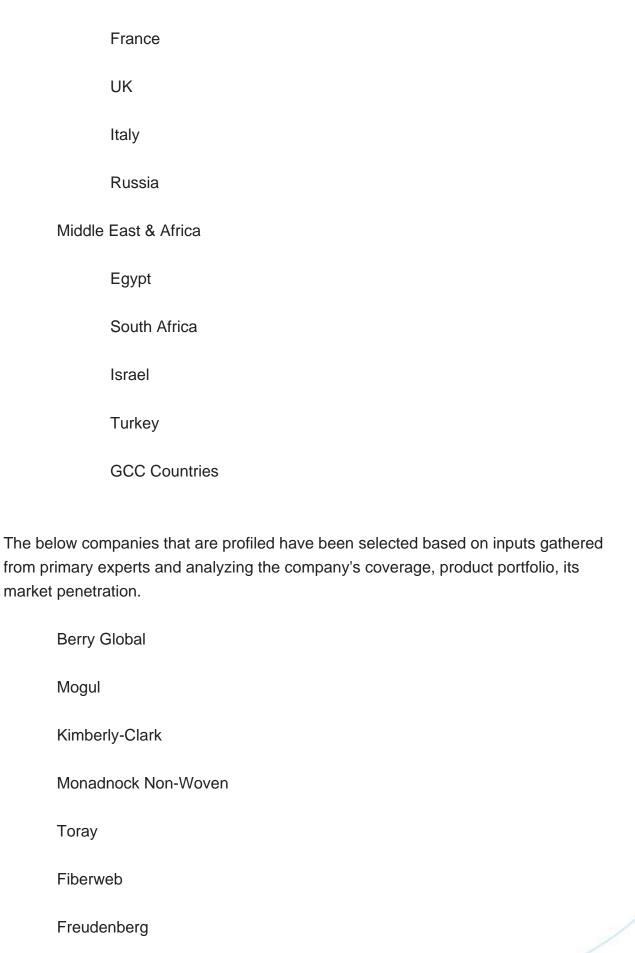
Healthcare Industry



Agricul	ture
Industr	ial
Garme	nt Industry
Others	
This report als	o calite the market by region:
This report als	o splits the market by region:
Americ	eas
	United States
	Canada
	Mexico
	Brazil
APAC	
	China
	Japan
	Korea
	Southeast Asia
	India
	Australia
Europe	<b>)</b>

Germany







Don & Low		
PFNonwovens		
Agiontex		
Mondi		
TechniForm GmbH		
Irema		
Ahlstrom-Munksj?		
Sinopec		
Mitsui Chemicals		
Hollingsworth & Vose		
Surya Laxmi Industries		
Jiangyin Yoobond New Composite Materials		
Jiangyin Jianfa Special Textile Co., Ltd.		
Key Questions Addressed in this Report		
What is the 10-year outlook for the global PP Melt Blown Nonwoven market?		
What factors are driving PP Melt Blown Nonwoven market growth, globally and by region?		
Which technologies are poised for the fastest growth by market and region?		
How do PP Melt Blown Nonwoven market opportunities vary by end market size?		



How does PP Melt Blown Nonwoven break out type, application?

What are the influences of COVID-19 and Russia-Ukraine war?



# **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 PP Melt Blown Nonwoven Annual Sales 2018-2029
- 2.1.2 World Current & Future Analysis for PP Melt Blown Nonwoven by Geographic Region, 2018, 2022 & 2029
- 2.1.3 World Current & Future Analysis for PP Melt Blown Nonwoven by Country/Region, 2018, 2022 & 2029
- 2.2 PP Melt Blown Nonwoven Segment by Type
  - 2.2.1 Less than 2 Microns
  - 2.2.2 2 5 Microns
  - 2.2.3 Bigger than 5 Microns
- 2.3 PP Melt Blown Nonwoven Sales by Type
  - 2.3.1 Global PP Melt Blown Nonwoven Sales Market Share by Type (2018-2023)
- 2.3.2 Global PP Melt Blown Nonwoven Revenue and Market Share by Type (2018-2023)
- 2.3.3 Global PP Melt Blown Nonwoven Sale Price by Type (2018-2023)
- 2.4 PP Melt Blown Nonwoven Segment by Application
  - 2.4.1 Healthcare Industry
  - 2.4.2 Agriculture
  - 2.4.3 Industrial
  - 2.4.4 Garment Industry
  - 2.4.5 Others
- 2.5 PP Melt Blown Nonwoven Sales by Application
  - 2.5.1 Global PP Melt Blown Nonwoven Sale Market Share by Application (2018-2023)
- 2.5.2 Global PP Melt Blown Nonwoven Revenue and Market Share by Application



(2018-2023)

2.5.3 Global PP Melt Blown Nonwoven Sale Price by Application (2018-2023)

#### 3 GLOBAL PP MELT BLOWN NONWOVEN BY COMPANY

- 3.1 Global PP Melt Blown Nonwoven Breakdown Data by Company
- 3.1.1 Global PP Melt Blown Nonwoven Annual Sales by Company (2018-2023)
- 3.1.2 Global PP Melt Blown Nonwoven Sales Market Share by Company (2018-2023)
- 3.2 Global PP Melt Blown Nonwoven Annual Revenue by Company (2018-2023)
- 3.2.1 Global PP Melt Blown Nonwoven Revenue by Company (2018-2023)
- 3.2.2 Global PP Melt Blown Nonwoven Revenue Market Share by Company (2018-2023)
- 3.3 Global PP Melt Blown Nonwoven Sale Price by Company
- 3.4 Key Manufacturers PP Melt Blown Nonwoven Producing Area Distribution, Sales Area, Product Type
  - 3.4.1 Key Manufacturers PP Melt Blown Nonwoven Product Location Distribution
  - 3.4.2 Players PP Melt Blown Nonwoven Products Offered
- 3.5 Market Concentration Rate Analysis
  - 3.5.1 Competition Landscape Analysis
  - 3.5.2 Concentration Ratio (CR3, CR5 and CR10) & (2018-2023)
- 3.6 New Products and Potential Entrants
- 3.7 Mergers & Acquisitions, Expansion

# 4 WORLD HISTORIC REVIEW FOR PP MELT BLOWN NONWOVEN BY GEOGRAPHIC REGION

- 4.1 World Historic PP Melt Blown Nonwoven Market Size by Geographic Region (2018-2023)
- 4.1.1 Global PP Melt Blown Nonwoven Annual Sales by Geographic Region (2018-2023)
- 4.1.2 Global PP Melt Blown Nonwoven Annual Revenue by Geographic Region (2018-2023)
- 4.2 World Historic PP Melt Blown Nonwoven Market Size by Country/Region (2018-2023)
  - 4.2.1 Global PP Melt Blown Nonwoven Annual Sales by Country/Region (2018-2023)
- 4.2.2 Global PP Melt Blown Nonwoven Annual Revenue by Country/Region (2018-2023)
- 4.3 Americas PP Melt Blown Nonwoven Sales Growth
- 4.4 APAC PP Melt Blown Nonwoven Sales Growth



- 4.5 Europe PP Melt Blown Nonwoven Sales Growth
- 4.6 Middle East & Africa PP Melt Blown Nonwoven Sales Growth

#### **5 AMERICAS**

- 5.1 Americas PP Melt Blown Nonwoven Sales by Country
  - 5.1.1 Americas PP Melt Blown Nonwoven Sales by Country (2018-2023)
  - 5.1.2 Americas PP Melt Blown Nonwoven Revenue by Country (2018-2023)
- 5.2 Americas PP Melt Blown Nonwoven Sales by Type
- 5.3 Americas PP Melt Blown Nonwoven Sales by Application
- 5.4 United States
- 5.5 Canada
- 5.6 Mexico
- 5.7 Brazil

# 6 APAC

- 6.1 APAC PP Melt Blown Nonwoven Sales by Region
  - 6.1.1 APAC PP Melt Blown Nonwoven Sales by Region (2018-2023)
  - 6.1.2 APAC PP Melt Blown Nonwoven Revenue by Region (2018-2023)
- 6.2 APAC PP Melt Blown Nonwoven Sales by Type
- 6.3 APAC PP Melt Blown Nonwoven Sales by Application
- 6.4 China
- 6.5 Japan
- 6.6 South Korea
- 6.7 Southeast Asia
- 6.8 India
- 6.9 Australia
- 6.10 China Taiwan

#### **7 EUROPE**

- 7.1 Europe PP Melt Blown Nonwoven by Country
- 7.1.1 Europe PP Melt Blown Nonwoven Sales by Country (2018-2023)
- 7.1.2 Europe PP Melt Blown Nonwoven Revenue by Country (2018-2023)
- 7.2 Europe PP Melt Blown Nonwoven Sales by Type
- 7.3 Europe PP Melt Blown Nonwoven Sales by Application
- 7.4 Germany
- 7.5 France



- 7.6 UK
- 7.7 Italy
- 7.8 Russia

#### **8 MIDDLE EAST & AFRICA**

- 8.1 Middle East & Africa PP Melt Blown Nonwoven by Country
  - 8.1.1 Middle East & Africa PP Melt Blown Nonwoven Sales by Country (2018-2023)
  - 8.1.2 Middle East & Africa PP Melt Blown Nonwoven Revenue by Country (2018-2023)
- 8.2 Middle East & Africa PP Melt Blown Nonwoven Sales by Type
- 8.3 Middle East & Africa PP Melt Blown Nonwoven Sales by Application
- 8.4 Egypt
- 8.5 South Africa
- 8.6 Israel
- 8.7 Turkey
- 8.8 GCC Countries

# 9 MARKET DRIVERS, CHALLENGES AND TRENDS

- 9.1 Market Drivers & Growth Opportunities
- 9.2 Market Challenges & Risks
- 9.3 Industry Trends

## 10 MANUFACTURING COST STRUCTURE ANALYSIS

- 10.1 Raw Material and Suppliers
- 10.2 Manufacturing Cost Structure Analysis of PP Melt Blown Nonwoven
- 10.3 Manufacturing Process Analysis of PP Melt Blown Nonwoven
- 10.4 Industry Chain Structure of PP Melt Blown Nonwoven

# 11 MARKETING, DISTRIBUTORS AND CUSTOMER

- 11.1 Sales Channel
  - 11.1.1 Direct Channels
  - 11.1.2 Indirect Channels
- 11.2 PP Melt Blown Nonwoven Distributors
- 11.3 PP Melt Blown Nonwoven Customer

# 12 WORLD FORECAST REVIEW FOR PP MELT BLOWN NONWOVEN BY



#### **GEOGRAPHIC REGION**

- 12.1 Global PP Melt Blown Nonwoven Market Size Forecast by Region
  - 12.1.1 Global PP Melt Blown Nonwoven Forecast by Region (2024-2029)
- 12.1.2 Global PP Melt Blown Nonwoven Annual Revenue Forecast by Region (2024-2029)
- 12.2 Americas Forecast by Country
- 12.3 APAC Forecast by Region
- 12.4 Europe Forecast by Country
- 12.5 Middle East & Africa Forecast by Country
- 12.6 Global PP Melt Blown Nonwoven Forecast by Type
- 12.7 Global PP Melt Blown Nonwoven Forecast by Application

#### 13 KEY PLAYERS ANALYSIS

- 13.1 Berry Global
  - 13.1.1 Berry Global Company Information
  - 13.1.2 Berry Global PP Melt Blown Nonwoven Product Portfolios and Specifications
- 13.1.3 Berry Global PP Melt Blown Nonwoven Sales, Revenue, Price and Gross Margin (2018-2023)
  - 13.1.4 Berry Global Main Business Overview
  - 13.1.5 Berry Global Latest Developments
- 13.2 Mogul
  - 13.2.1 Mogul Company Information
  - 13.2.2 Mogul PP Melt Blown Nonwoven Product Portfolios and Specifications
- 13.2.3 Mogul PP Melt Blown Nonwoven Sales, Revenue, Price and Gross Margin (2018-2023)
  - 13.2.4 Mogul Main Business Overview
  - 13.2.5 Mogul Latest Developments
- 13.3 Kimberly-Clark
  - 13.3.1 Kimberly-Clark Company Information
  - 13.3.2 Kimberly-Clark PP Melt Blown Nonwoven Product Portfolios and Specifications
- 13.3.3 Kimberly-Clark PP Melt Blown Nonwoven Sales, Revenue, Price and Gross Margin (2018-2023)
  - 13.3.4 Kimberly-Clark Main Business Overview
  - 13.3.5 Kimberly-Clark Latest Developments
- 13.4 Monadnock Non-Woven
  - 13.4.1 Monadnock Non-Woven Company Information
  - 13.4.2 Monadnock Non-Woven PP Melt Blown Nonwoven Product Portfolios and



# **Specifications**

- 13.4.3 Monadnock Non-Woven PP Melt Blown Nonwoven Sales, Revenue, Price and Gross Margin (2018-2023)
  - 13.4.4 Monadnock Non-Woven Main Business Overview
  - 13.4.5 Monadnock Non-Woven Latest Developments
- 13.5 Toray
  - 13.5.1 Toray Company Information
  - 13.5.2 Toray PP Melt Blown Nonwoven Product Portfolios and Specifications
- 13.5.3 Toray PP Melt Blown Nonwoven Sales, Revenue, Price and Gross Margin (2018-2023)
  - 13.5.4 Toray Main Business Overview
  - 13.5.5 Toray Latest Developments
- 13.6 Fiberweb
  - 13.6.1 Fiberweb Company Information
  - 13.6.2 Fiberweb PP Melt Blown Nonwoven Product Portfolios and Specifications
- 13.6.3 Fiberweb PP Melt Blown Nonwoven Sales, Revenue, Price and Gross Margin (2018-2023)
  - 13.6.4 Fiberweb Main Business Overview
  - 13.6.5 Fiberweb Latest Developments
- 13.7 Freudenberg
  - 13.7.1 Freudenberg Company Information
  - 13.7.2 Freudenberg PP Melt Blown Nonwoven Product Portfolios and Specifications
- 13.7.3 Freudenberg PP Melt Blown Nonwoven Sales, Revenue, Price and Gross Margin (2018-2023)
  - 13.7.4 Freudenberg Main Business Overview
  - 13.7.5 Freudenberg Latest Developments
- 13.8 Don & Low
  - 13.8.1 Don & Low Company Information
  - 13.8.2 Don & Low PP Melt Blown Nonwoven Product Portfolios and Specifications
- 13.8.3 Don & Low PP Melt Blown Nonwoven Sales, Revenue, Price and Gross Margin (2018-2023)
  - 13.8.4 Don & Low Main Business Overview
  - 13.8.5 Don & Low Latest Developments
- 13.9 PFNonwovens
- 13.9.1 PFNonwovens Company Information
- 13.9.2 PFNonwovens PP Melt Blown Nonwoven Product Portfolios and Specifications
- 13.9.3 PFNonwovens PP Melt Blown Nonwoven Sales, Revenue, Price and Gross Margin (2018-2023)
- 13.9.4 PFNonwovens Main Business Overview



- 13.9.5 PFNonwovens Latest Developments
- 13.10 Agiontex
  - 13.10.1 Agiontex Company Information
  - 13.10.2 Agiontex PP Melt Blown Nonwoven Product Portfolios and Specifications
- 13.10.3 Agiontex PP Melt Blown Nonwoven Sales, Revenue, Price and Gross Margin (2018-2023)
  - 13.10.4 Agiontex Main Business Overview
  - 13.10.5 Agiontex Latest Developments
- 13.11 Mondi
- 13.11.1 Mondi Company Information
- 13.11.2 Mondi PP Melt Blown Nonwoven Product Portfolios and Specifications
- 13.11.3 Mondi PP Melt Blown Nonwoven Sales, Revenue, Price and Gross Margin (2018-2023)
  - 13.11.4 Mondi Main Business Overview
  - 13.11.5 Mondi Latest Developments
- 13.12 TechniForm GmbH
  - 13.12.1 TechniForm GmbH Company Information
- 13.12.2 TechniForm GmbH PP Melt Blown Nonwoven Product Portfolios and Specifications
- 13.12.3 TechniForm GmbH PP Melt Blown Nonwoven Sales, Revenue, Price and Gross Margin (2018-2023)
  - 13.12.4 TechniForm GmbH Main Business Overview
  - 13.12.5 TechniForm GmbH Latest Developments
- 13.13 Irema
  - 13.13.1 Irema Company Information
  - 13.13.2 Irema PP Melt Blown Nonwoven Product Portfolios and Specifications
- 13.13.3 Irema PP Melt Blown Nonwoven Sales, Revenue, Price and Gross Margin (2018-2023)
  - 13.13.4 Irema Main Business Overview
  - 13.13.5 Irema Latest Developments
- 13.14 Ahlstrom-Munksj?
  - 13.14.1 Ahlstrom-Munksj? Company Information
- 13.14.2 Ahlstrom-Munksj? PP Melt Blown Nonwoven Product Portfolios and Specifications
- 13.14.3 Ahlstrom-Munksj? PP Melt Blown Nonwoven Sales, Revenue, Price and Gross Margin (2018-2023)
  - 13.14.4 Ahlstrom-Munksj? Main Business Overview
  - 13.14.5 Ahlstrom-Munksj? Latest Developments
- 13.15 Sinopec



- 13.15.1 Sinopec Company Information
- 13.15.2 Sinopec PP Melt Blown Nonwoven Product Portfolios and Specifications
- 13.15.3 Sinopec PP Melt Blown Nonwoven Sales, Revenue, Price and Gross Margin (2018-2023)
  - 13.15.4 Sinopec Main Business Overview
  - 13.15.5 Sinopec Latest Developments
- 13.16 Mitsui Chemicals
  - 13.16.1 Mitsui Chemicals Company Information
- 13.16.2 Mitsui Chemicals PP Melt Blown Nonwoven Product Portfolios and Specifications
- 13.16.3 Mitsui Chemicals PP Melt Blown Nonwoven Sales, Revenue, Price and Gross Margin (2018-2023)
  - 13.16.4 Mitsui Chemicals Main Business Overview
  - 13.16.5 Mitsui Chemicals Latest Developments
- 13.17 Hollingsworth & Vose
  - 13.17.1 Hollingsworth & Vose Company Information
- 13.17.2 Hollingsworth & Vose PP Melt Blown Nonwoven Product Portfolios and Specifications
- 13.17.3 Hollingsworth & Vose PP Melt Blown Nonwoven Sales, Revenue, Price and Gross Margin (2018-2023)
  - 13.17.4 Hollingsworth & Vose Main Business Overview
  - 13.17.5 Hollingsworth & Vose Latest Developments
- 13.18 Surya Laxmi Industries
  - 13.18.1 Surya Laxmi Industries Company Information
- 13.18.2 Surya Laxmi Industries PP Melt Blown Nonwoven Product Portfolios and Specifications
- 13.18.3 Surya Laxmi Industries PP Melt Blown Nonwoven Sales, Revenue, Price and Gross Margin (2018-2023)
  - 13.18.4 Surya Laxmi Industries Main Business Overview
  - 13.18.5 Surya Laxmi Industries Latest Developments
- 13.19 Jiangyin Yoobond New Composite Materials
  - 13.19.1 Jiangyin Yoobond New Composite Materials Company Information
- 13.19.2 Jiangyin Yoobond New Composite Materials PP Melt Blown Nonwoven Product Portfolios and Specifications
- 13.19.3 Jiangyin Yoobond New Composite Materials PP Melt Blown Nonwoven Sales, Revenue, Price and Gross Margin (2018-2023)
  - 13.19.4 Jiangyin Yoobond New Composite Materials Main Business Overview
- 13.19.5 Jiangyin Yoobond New Composite Materials Latest Developments
- 13.20 Jiangyin Jianfa Special Textile Co., Ltd.



13.20.1 Jiangyin Jianfa Special Textile Co., Ltd. Company Information

13.20.2 Jiangyin Jianfa Special Textile Co., Ltd. PP Melt Blown Nonwoven Product Portfolios and Specifications

13.20.3 Jiangyin Jianfa Special Textile Co., Ltd. PP Melt Blown Nonwoven Sales, Revenue, Price and Gross Margin (2018-2023)

13.20.4 Jiangyin Jianfa Special Textile Co., Ltd. Main Business Overview

13.20.5 Jiangyin Jianfa Special Textile Co., Ltd. Latest Developments

## 14 RESEARCH FINDINGS AND CONCLUSION



# **List Of Tables**

#### LIST OF TABLES

- Table 1. PP Melt Blown Nonwoven Annual Sales CAGR by Geographic Region (2018, 2022 & 2029) & (\$ millions)
- Table 2. PP Melt Blown Nonwoven Annual Sales CAGR by Country/Region (2018, 2022 & 2029) & (\$ millions)
- Table 3. Major Players of Less than 2 Microns
- Table 4. Major Players of 2 5 Microns
- Table 5. Major Players of Bigger than 5 Microns
- Table 6. Global PP Melt Blown Nonwoven Sales by Type (2018-2023) & (Tons)
- Table 7. Global PP Melt Blown Nonwoven Sales Market Share by Type (2018-2023)
- Table 8. Global PP Melt Blown Nonwoven Revenue by Type (2018-2023) & (\$ million)
- Table 9. Global PP Melt Blown Nonwoven Revenue Market Share by Type (2018-2023)
- Table 10. Global PP Melt Blown Nonwoven Sale Price by Type (2018-2023) & (US\$/Ton)
- Table 11. Global PP Melt Blown Nonwoven Sales by Application (2018-2023) & (Tons)
- Table 12. Global PP Melt Blown Nonwoven Sales Market Share by Application (2018-2023)
- Table 13. Global PP Melt Blown Nonwoven Revenue by Application (2018-2023)
- Table 14. Global PP Melt Blown Nonwoven Revenue Market Share by Application (2018-2023)
- Table 15. Global PP Melt Blown Nonwoven Sale Price by Application (2018-2023) & (US\$/Ton)
- Table 16. Global PP Melt Blown Nonwoven Sales by Company (2018-2023) & (Tons)
- Table 17. Global PP Melt Blown Nonwoven Sales Market Share by Company (2018-2023)
- Table 18. Global PP Melt Blown Nonwoven Revenue by Company (2018-2023) (\$ Millions)
- Table 19. Global PP Melt Blown Nonwoven Revenue Market Share by Company (2018-2023)
- Table 20. Global PP Melt Blown Nonwoven Sale Price by Company (2018-2023) & (US\$/Ton)
- Table 21. Key Manufacturers PP Melt Blown Nonwoven Producing Area Distribution and Sales Area
- Table 22. Players PP Melt Blown Nonwoven Products Offered
- Table 23. PP Melt Blown Nonwoven Concentration Ratio (CR3, CR5 and CR10) & (2018-2023)



- Table 24. New Products and Potential Entrants
- Table 25. Mergers & Acquisitions, Expansion
- Table 26. Global PP Melt Blown Nonwoven Sales by Geographic Region (2018-2023) & (Tons)
- Table 27. Global PP Melt Blown Nonwoven Sales Market Share Geographic Region (2018-2023)
- Table 28. Global PP Melt Blown Nonwoven Revenue by Geographic Region (2018-2023) & (\$ millions)
- Table 29. Global PP Melt Blown Nonwoven Revenue Market Share by Geographic Region (2018-2023)
- Table 30. Global PP Melt Blown Nonwoven Sales by Country/Region (2018-2023) & (Tons)
- Table 31. Global PP Melt Blown Nonwoven Sales Market Share by Country/Region (2018-2023)
- Table 32. Global PP Melt Blown Nonwoven Revenue by Country/Region (2018-2023) & (\$ millions)
- Table 33. Global PP Melt Blown Nonwoven Revenue Market Share by Country/Region (2018-2023)
- Table 34. Americas PP Melt Blown Nonwoven Sales by Country (2018-2023) & (Tons)
- Table 35. Americas PP Melt Blown Nonwoven Sales Market Share by Country (2018-2023)
- Table 36. Americas PP Melt Blown Nonwoven Revenue by Country (2018-2023) & (\$ Millions)
- Table 37. Americas PP Melt Blown Nonwoven Revenue Market Share by Country (2018-2023)
- Table 38. Americas PP Melt Blown Nonwoven Sales by Type (2018-2023) & (Tons)
- Table 39. Americas PP Melt Blown Nonwoven Sales by Application (2018-2023) & (Tons)
- Table 40. APAC PP Melt Blown Nonwoven Sales by Region (2018-2023) & (Tons)
- Table 41. APAC PP Melt Blown Nonwoven Sales Market Share by Region (2018-2023)
- Table 42. APAC PP Melt Blown Nonwoven Revenue by Region (2018-2023) & (\$ Millions)
- Table 43. APAC PP Melt Blown Nonwoven Revenue Market Share by Region (2018-2023)
- Table 44. APAC PP Melt Blown Nonwoven Sales by Type (2018-2023) & (Tons)
- Table 45. APAC PP Melt Blown Nonwoven Sales by Application (2018-2023) & (Tons)
- Table 46. Europe PP Melt Blown Nonwoven Sales by Country (2018-2023) & (Tons)
- Table 47. Europe PP Melt Blown Nonwoven Sales Market Share by Country (2018-2023)



- Table 48. Europe PP Melt Blown Nonwoven Revenue by Country (2018-2023) & (\$ Millions)
- Table 49. Europe PP Melt Blown Nonwoven Revenue Market Share by Country (2018-2023)
- Table 50. Europe PP Melt Blown Nonwoven Sales by Type (2018-2023) & (Tons)
- Table 51. Europe PP Melt Blown Nonwoven Sales by Application (2018-2023) & (Tons)
- Table 52. Middle East & Africa PP Melt Blown Nonwoven Sales by Country (2018-2023) & (Tons)
- Table 53. Middle East & Africa PP Melt Blown Nonwoven Sales Market Share by Country (2018-2023)
- Table 54. Middle East & Africa PP Melt Blown Nonwoven Revenue by Country (2018-2023) & (\$ Millions)
- Table 55. Middle East & Africa PP Melt Blown Nonwoven Revenue Market Share by Country (2018-2023)
- Table 56. Middle East & Africa PP Melt Blown Nonwoven Sales by Type (2018-2023) & (Tons)
- Table 57. Middle East & Africa PP Melt Blown Nonwoven Sales by Application (2018-2023) & (Tons)
- Table 58. Key Market Drivers & Growth Opportunities of PP Melt Blown Nonwoven
- Table 59. Key Market Challenges & Risks of PP Melt Blown Nonwoven
- Table 60. Key Industry Trends of PP Melt Blown Nonwoven
- Table 61. PP Melt Blown Nonwoven Raw Material
- Table 62. Key Suppliers of Raw Materials
- Table 63. PP Melt Blown Nonwoven Distributors List
- Table 64. PP Melt Blown Nonwoven Customer List
- Table 65. Global PP Melt Blown Nonwoven Sales Forecast by Region (2024-2029) & (Tons)
- Table 66. Global PP Melt Blown Nonwoven Revenue Forecast by Region (2024-2029) & (\$ millions)
- Table 67. Americas PP Melt Blown Nonwoven Sales Forecast by Country (2024-2029) & (Tons)
- Table 68. Americas PP Melt Blown Nonwoven Revenue Forecast by Country (2024-2029) & (\$ millions)
- Table 69. APAC PP Melt Blown Nonwoven Sales Forecast by Region (2024-2029) & (Tons)
- Table 70. APAC PP Melt Blown Nonwoven Revenue Forecast by Region (2024-2029) & (\$ millions)
- Table 71. Europe PP Melt Blown Nonwoven Sales Forecast by Country (2024-2029) & (Tons)



Table 72. Europe PP Melt Blown Nonwoven Revenue Forecast by Country (2024-2029) & (\$ millions)

Table 73. Middle East & Africa PP Melt Blown Nonwoven Sales Forecast by Country (2024-2029) & (Tons)

Table 74. Middle East & Africa PP Melt Blown Nonwoven Revenue Forecast by Country (2024-2029) & (\$ millions)

Table 75. Global PP Melt Blown Nonwoven Sales Forecast by Type (2024-2029) & (Tons)

Table 76. Global PP Melt Blown Nonwoven Revenue Forecast by Type (2024-2029) & (\$ Millions)

Table 77. Global PP Melt Blown Nonwoven Sales Forecast by Application (2024-2029) & (Tons)

Table 78. Global PP Melt Blown Nonwoven Revenue Forecast by Application (2024-2029) & (\$ Millions)

Table 79. Berry Global Basic Information, PP Melt Blown Nonwoven Manufacturing Base, Sales Area and Its Competitors

Table 80. Berry Global PP Melt Blown Nonwoven Product Portfolios and Specifications

Table 81. Berry Global PP Melt Blown Nonwoven Sales (Tons), Revenue (\$ Million),

Price (US\$/Ton) and Gross Margin (2018-2023)

Table 82. Berry Global Main Business

Table 83. Berry Global Latest Developments

Table 84. Mogul Basic Information, PP Melt Blown Nonwoven Manufacturing Base,

Sales Area and Its Competitors

Table 85. Mogul PP Melt Blown Nonwoven Product Portfolios and Specifications

Table 86. Mogul PP Melt Blown Nonwoven Sales (Tons), Revenue (\$ Million), Price (US\$/Ton) and Gross Margin (2018-2023)

Table 87. Mogul Main Business

Table 88. Mogul Latest Developments

Table 89. Kimberly-Clark Basic Information, PP Melt Blown Nonwoven Manufacturing Base, Sales Area and Its Competitors

Table 90. Kimberly-Clark PP Melt Blown Nonwoven Product Portfolios and Specifications

Table 91. Kimberly-Clark PP Melt Blown Nonwoven Sales (Tons), Revenue (\$ Million), Price (US\$/Ton) and Gross Margin (2018-2023)

Table 92. Kimberly-Clark Main Business

Table 93. Kimberly-Clark Latest Developments

Table 94. Monadnock Non-Woven Basic Information, PP Melt Blown Nonwoven Manufacturing Base, Sales Area and Its Competitors

Table 95. Monadnock Non-Woven PP Melt Blown Nonwoven Product Portfolios and



# **Specifications**

Table 96. Monadnock Non-Woven PP Melt Blown Nonwoven Sales (Tons), Revenue (\$ Million), Price (US\$/Ton) and Gross Margin (2018-2023)

Table 97. Monadnock Non-Woven Main Business

Table 98. Monadnock Non-Woven Latest Developments

Table 99. Toray Basic Information, PP Melt Blown Nonwoven Manufacturing Base,

Sales Area and Its Competitors

Table 100. Toray PP Melt Blown Nonwoven Product Portfolios and Specifications

Table 101. Toray PP Melt Blown Nonwoven Sales (Tons), Revenue (\$ Million), Price

(US\$/Ton) and Gross Margin (2018-2023)

Table 102. Toray Main Business

Table 103. Toray Latest Developments

Table 104. Fiberweb Basic Information, PP Melt Blown Nonwoven Manufacturing Base,

Sales Area and Its Competitors

Table 105. Fiberweb PP Melt Blown Nonwoven Product Portfolios and Specifications

Table 106. Fiberweb PP Melt Blown Nonwoven Sales (Tons), Revenue (\$ Million), Price

(US\$/Ton) and Gross Margin (2018-2023)

Table 107. Fiberweb Main Business

Table 108. Fiberweb Latest Developments

Table 109. Freudenberg Basic Information, PP Melt Blown Nonwoven Manufacturing

Base, Sales Area and Its Competitors

Table 110. Freudenberg PP Melt Blown Nonwoven Product Portfolios and

Specifications

Table 111. Freudenberg PP Melt Blown Nonwoven Sales (Tons), Revenue (\$ Million),

Price (US\$/Ton) and Gross Margin (2018-2023)

Table 112. Freudenberg Main Business

Table 113. Freudenberg Latest Developments

Table 114. Don & Low Basic Information, PP Melt Blown Nonwoven Manufacturing

Base, Sales Area and Its Competitors

Table 115. Don & Low PP Melt Blown Nonwoven Product Portfolios and Specifications

Table 116. Don & Low PP Melt Blown Nonwoven Sales (Tons), Revenue (\$ Million),

Price (US\$/Ton) and Gross Margin (2018-2023)

Table 117. Don & Low Main Business

Table 118. Don & Low Latest Developments

Table 119. PFNonwovens Basic Information, PP Melt Blown Nonwoven Manufacturing

Base, Sales Area and Its Competitors

Table 120. PFNonwovens PP Melt Blown Nonwoven Product Portfolios and

**Specifications** 

Table 121. PFNonwovens PP Melt Blown Nonwoven Sales (Tons), Revenue (\$ Million),



Price (US\$/Ton) and Gross Margin (2018-2023)

Table 122. PFNonwovens Main Business

Table 123. PFNonwovens Latest Developments

Table 124. Agiontex Basic Information, PP Melt Blown Nonwoven Manufacturing Base,

Sales Area and Its Competitors

Table 125. Agiontex PP Melt Blown Nonwoven Product Portfolios and Specifications

Table 126. Agiontex PP Melt Blown Nonwoven Sales (Tons), Revenue (\$ Million), Price

(US\$/Ton) and Gross Margin (2018-2023)

Table 127. Agiontex Main Business

Table 128. Agiontex Latest Developments

Table 129. Mondi Basic Information, PP Melt Blown Nonwoven Manufacturing Base,

Sales Area and Its Competitors

Table 130. Mondi PP Melt Blown Nonwoven Product Portfolios and Specifications

Table 131. Mondi PP Melt Blown Nonwoven Sales (Tons), Revenue (\$ Million), Price

(US\$/Ton) and Gross Margin (2018-2023)

Table 132. Mondi Main Business

Table 133. Mondi Latest Developments

Table 134. TechniForm GmbH Basic Information, PP Melt Blown Nonwoven

Manufacturing Base, Sales Area and Its Competitors

Table 135. TechniForm GmbH PP Melt Blown Nonwoven Product Portfolios and

Specifications

Table 136. TechniForm GmbH PP Melt Blown Nonwoven Sales (Tons), Revenue (\$

Million), Price (US\$/Ton) and Gross Margin (2018-2023)

Table 137. TechniForm GmbH Main Business

Table 138. TechniForm GmbH Latest Developments

Table 139. Irema Basic Information, PP Melt Blown Nonwoven Manufacturing Base,

Sales Area and Its Competitors

Table 140. Irema PP Melt Blown Nonwoven Product Portfolios and Specifications

Table 141. Irema PP Melt Blown Nonwoven Sales (Tons), Revenue (\$ Million), Price

(US\$/Ton) and Gross Margin (2018-2023)

Table 142. Irema Main Business

Table 143. Irema Latest Developments

Table 144. Ahlstrom-Munksj? Basic Information, PP Melt Blown Nonwoven

Manufacturing Base, Sales Area and Its Competitors

Table 145. Ahlstrom-Munksj? PP Melt Blown Nonwoven Product Portfolios and

Specifications

Table 146. Ahlstrom-Munksj? PP Melt Blown Nonwoven Sales (Tons), Revenue (\$

Million), Price (US\$/Ton) and Gross Margin (2018-2023)

Table 147. Ahlstrom-Munksj? Main Business



Table 148. Ahlstrom-Munksj? Latest Developments

Table 149. Sinopec Basic Information, PP Melt Blown Nonwoven Manufacturing Base, Sales Area and Its Competitors

Table 150. Sinopec PP Melt Blown Nonwoven Product Portfolios and Specifications

Table 151. Sinopec PP Melt Blown Nonwoven Sales (Tons), Revenue (\$ Million), Price

(US\$/Ton) and Gross Margin (2018-2023)

Table 152. Sinopec Main Business

Table 153. Sinopec Latest Developments

Table 154. Mitsui Chemicals Basic Information, PP Melt Blown Nonwoven

Manufacturing Base, Sales Area and Its Competitors

Table 155. Mitsui Chemicals PP Melt Blown Nonwoven Product Portfolios and Specifications

Table 156. Mitsui Chemicals PP Melt Blown Nonwoven Sales (Tons), Revenue (\$

Million), Price (US\$/Ton) and Gross Margin (2018-2023)

Table 157. Mitsui Chemicals Main Business

Table 158. Mitsui Chemicals Latest Developments

Table 159. Hollingsworth & Vose Basic Information, PP Melt Blown Nonwoven

Manufacturing Base, Sales Area and Its Competitors

Table 160. Hollingsworth & Vose PP Melt Blown Nonwoven Product Portfolios and Specifications

Table 161. Hollingsworth & Vose PP Melt Blown Nonwoven Sales (Tons), Revenue (\$

Million), Price (US\$/Ton) and Gross Margin (2018-2023)

Table 162. Hollingsworth & Vose Main Business

Table 163. Hollingsworth & Vose Latest Developments

Table 164. Surya Laxmi Industries Basic Information, PP Melt Blown Nonwoven

Manufacturing Base, Sales Area and Its Competitors

Table 165. Surya Laxmi Industries PP Melt Blown Nonwoven Product Portfolios and Specifications

Table 166. Surya Laxmi Industries PP Melt Blown Nonwoven Sales (Tons), Revenue (\$

Million), Price (US\$/Ton) and Gross Margin (2018-2023)

Table 167. Surya Laxmi Industries Main Business

Table 168. Surya Laxmi Industries Latest Developments

Table 169. Jiangyin Yoobond New Composite Materials Basic Information, PP Melt

Blown Nonwoven Manufacturing Base, Sales Area and Its Competitors

Table 170. Jiangyin Yoobond New Composite Materials PP Melt Blown Nonwoven

Product Portfolios and Specifications

Table 171. Jiangyin Yoobond New Composite Materials PP Melt Blown Nonwoven

Sales (Tons), Revenue (\$ Million), Price (US\$/Ton) and Gross Margin (2018-2023)

Table 172. Jiangyin Yoobond New Composite Materials Main Business



Table 173. Jiangyin Yoobond New Composite Materials Latest Developments

Table 174. Jiangyin Jianfa Special Textile Co., Ltd. Basic Information, PP Melt Blown Nonwoven Manufacturing Base, Sales Area and Its Competitors

Table 175. Jiangyin Jianfa Special Textile Co., Ltd. PP Melt Blown Nonwoven Product Portfolios and Specifications

Table 176. Jiangyin Jianfa Special Textile Co., Ltd. PP Melt Blown Nonwoven Sales (Tons), Revenue (\$ Million), Price (US\$/Ton) and Gross Margin (2018-2023)

Table 177. Jiangyin Jianfa Special Textile Co., Ltd. Main Business

Table 178. Jiangyin Jianfa Special Textile Co., Ltd. Latest Developments



# **List Of Figures**

#### LIST OF FIGURES

- Figure 1. Picture of PP Melt Blown Nonwoven
- Figure 2. PP Melt Blown Nonwoven Report Years Considered
- Figure 3. Research Objectives
- Figure 4. Research Methodology
- Figure 5. Research Process and Data Source
- Figure 6. Global PP Melt Blown Nonwoven Sales Growth Rate 2018-2029 (Tons)
- Figure 7. Global PP Melt Blown Nonwoven Revenue Growth Rate 2018-2029 (\$ Millions)
- Figure 8. PP Melt Blown Nonwoven Sales by Region (2018, 2022 & 2029) & (\$ Millions)
- Figure 9. Product Picture of Less than 2 Microns
- Figure 10. Product Picture of 2 5 Microns
- Figure 11. Product Picture of Bigger than 5 Microns
- Figure 12. Global PP Melt Blown Nonwoven Sales Market Share by Type in 2022
- Figure 13. Global PP Melt Blown Nonwoven Revenue Market Share by Type (2018-2023)
- Figure 14. PP Melt Blown Nonwoven Consumed in Healthcare Industry
- Figure 15. Global PP Melt Blown Nonwoven Market: Healthcare Industry (2018-2023) & (Tons)
- Figure 16. PP Melt Blown Nonwoven Consumed in Agriculture
- Figure 17. Global PP Melt Blown Nonwoven Market: Agriculture (2018-2023) & (Tons)
- Figure 18. PP Melt Blown Nonwoven Consumed in Industrial
- Figure 19. Global PP Melt Blown Nonwoven Market: Industrial (2018-2023) & (Tons)
- Figure 20. PP Melt Blown Nonwoven Consumed in Garment Industry
- Figure 21. Global PP Melt Blown Nonwoven Market: Garment Industry (2018-2023) & (Tons)
- Figure 22. PP Melt Blown Nonwoven Consumed in Others
- Figure 23. Global PP Melt Blown Nonwoven Market: Others (2018-2023) & (Tons)
- Figure 24. Global PP Melt Blown Nonwoven Sales Market Share by Application (2022)
- Figure 25. Global PP Melt Blown Nonwoven Revenue Market Share by Application in 2022
- Figure 26. PP Melt Blown Nonwoven Sales Market by Company in 2022 (Tons)
- Figure 27. Global PP Melt Blown Nonwoven Sales Market Share by Company in 2022
- Figure 28. PP Melt Blown Nonwoven Revenue Market by Company in 2022 (\$ Million)
- Figure 29. Global PP Melt Blown Nonwoven Revenue Market Share by Company in 2022



- Figure 30. Global PP Melt Blown Nonwoven Sales Market Share by Geographic Region (2018-2023)
- Figure 31. Global PP Melt Blown Nonwoven Revenue Market Share by Geographic Region in 2022
- Figure 32. Americas PP Melt Blown Nonwoven Sales 2018-2023 (Tons)
- Figure 33. Americas PP Melt Blown Nonwoven Revenue 2018-2023 (\$ Millions)
- Figure 34. APAC PP Melt Blown Nonwoven Sales 2018-2023 (Tons)
- Figure 35. APAC PP Melt Blown Nonwoven Revenue 2018-2023 (\$ Millions)
- Figure 36. Europe PP Melt Blown Nonwoven Sales 2018-2023 (Tons)
- Figure 37. Europe PP Melt Blown Nonwoven Revenue 2018-2023 (\$ Millions)
- Figure 38. Middle East & Africa PP Melt Blown Nonwoven Sales 2018-2023 (Tons)
- Figure 39. Middle East & Africa PP Melt Blown Nonwoven Revenue 2018-2023 (\$ Millions)
- Figure 40. Americas PP Melt Blown Nonwoven Sales Market Share by Country in 2022
- Figure 41. Americas PP Melt Blown Nonwoven Revenue Market Share by Country in 2022
- Figure 42. Americas PP Melt Blown Nonwoven Sales Market Share by Type (2018-2023)
- Figure 43. Americas PP Melt Blown Nonwoven Sales Market Share by Application (2018-2023)
- Figure 44. United States PP Melt Blown Nonwoven Revenue Growth 2018-2023 (\$ Millions)
- Figure 45. Canada PP Melt Blown Nonwoven Revenue Growth 2018-2023 (\$ Millions)
- Figure 46. Mexico PP Melt Blown Nonwoven Revenue Growth 2018-2023 (\$ Millions)
- Figure 47. Brazil PP Melt Blown Nonwoven Revenue Growth 2018-2023 (\$ Millions)
- Figure 48. APAC PP Melt Blown Nonwoven Sales Market Share by Region in 2022
- Figure 49. APAC PP Melt Blown Nonwoven Revenue Market Share by Regions in 2022
- Figure 50. APAC PP Melt Blown Nonwoven Sales Market Share by Type (2018-2023)
- Figure 51. APAC PP Melt Blown Nonwoven Sales Market Share by Application (2018-2023)
- Figure 52. China PP Melt Blown Nonwoven Revenue Growth 2018-2023 (\$ Millions)
- Figure 53. Japan PP Melt Blown Nonwoven Revenue Growth 2018-2023 (\$ Millions)
- Figure 54. South Korea PP Melt Blown Nonwoven Revenue Growth 2018-2023 (\$ Millions)
- Figure 55. Southeast Asia PP Melt Blown Nonwoven Revenue Growth 2018-2023 (\$ Millions)
- Figure 56. India PP Melt Blown Nonwoven Revenue Growth 2018-2023 (\$ Millions)
- Figure 57. Australia PP Melt Blown Nonwoven Revenue Growth 2018-2023 (\$ Millions)
- Figure 58. China Taiwan PP Melt Blown Nonwoven Revenue Growth 2018-2023 (\$



# Millions)

- Figure 59. Europe PP Melt Blown Nonwoven Sales Market Share by Country in 2022
- Figure 60. Europe PP Melt Blown Nonwoven Revenue Market Share by Country in 2022
- Figure 61. Europe PP Melt Blown Nonwoven Sales Market Share by Type (2018-2023)
- Figure 62. Europe PP Melt Blown Nonwoven Sales Market Share by Application (2018-2023)
- Figure 63. Germany PP Melt Blown Nonwoven Revenue Growth 2018-2023 (\$ Millions)
- Figure 64. France PP Melt Blown Nonwoven Revenue Growth 2018-2023 (\$ Millions)
- Figure 65. UK PP Melt Blown Nonwoven Revenue Growth 2018-2023 (\$ Millions)
- Figure 66. Italy PP Melt Blown Nonwoven Revenue Growth 2018-2023 (\$ Millions)
- Figure 67. Russia PP Melt Blown Nonwoven Revenue Growth 2018-2023 (\$ Millions)
- Figure 68. Middle East & Africa PP Melt Blown Nonwoven Sales Market Share by Country in 2022
- Figure 69. Middle East & Africa PP Melt Blown Nonwoven Revenue Market Share by Country in 2022
- Figure 70. Middle East & Africa PP Melt Blown Nonwoven Sales Market Share by Type (2018-2023)
- Figure 71. Middle East & Africa PP Melt Blown Nonwoven Sales Market Share by Application (2018-2023)
- Figure 72. Egypt PP Melt Blown Nonwoven Revenue Growth 2018-2023 (\$ Millions)
- Figure 73. South Africa PP Melt Blown Nonwoven Revenue Growth 2018-2023 (\$ Millions)
- Figure 74. Israel PP Melt Blown Nonwoven Revenue Growth 2018-2023 (\$ Millions)
- Figure 75. Turkey PP Melt Blown Nonwoven Revenue Growth 2018-2023 (\$ Millions)
- Figure 76. GCC Country PP Melt Blown Nonwoven Revenue Growth 2018-2023 (\$ Millions)
- Figure 77. Manufacturing Cost Structure Analysis of PP Melt Blown Nonwoven in 2022
- Figure 78. Manufacturing Process Analysis of PP Melt Blown Nonwoven
- Figure 79. Industry Chain Structure of PP Melt Blown Nonwoven
- Figure 80. Channels of Distribution
- Figure 81. Global PP Melt Blown Nonwoven Sales Market Forecast by Region (2024-2029)
- Figure 82. Global PP Melt Blown Nonwoven Revenue Market Share Forecast by Region (2024-2029)
- Figure 83. Global PP Melt Blown Nonwoven Sales Market Share Forecast by Type (2024-2029)
- Figure 84. Global PP Melt Blown Nonwoven Revenue Market Share Forecast by Type (2024-2029)



Figure 85. Global PP Melt Blown Nonwoven Sales Market Share Forecast by Application (2024-2029)

Figure 86. Global PP Melt Blown Nonwoven Revenue Market Share Forecast by Application (2024-2029)



# I would like to order

Product name: Global PP Melt Blown Nonwoven Market Growth 2023-2029

Product link: https://marketpublishers.com/r/G979B81E50C9EN.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 <a href="https://marketpublishers.com/r/G979B81E50C9EN.html">https://marketpublishers.com/r/G979B81E50C9EN.html</a>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:	
Last name:	
Email:	
Company:	
Address:	
City:	
Zip code:	
Country:	
Tel:	
Fax:	
Your message:	
	**All fields are required
	Custumer signature

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <a href="https://marketpublishers.com/docs/terms.html">https://marketpublishers.com/docs/terms.html</a>

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970