

Production and Market of Paraformaldehyde in China

**The Eighteenth Edition
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1. Introduction

This 18th edition PF report, formulated in April 2022, focuses on the situation of China's paraformaldehyde (PF) industry in 2021 and Q1 2022, as well as forecasting its future development trend. The report aims to disclose the latest production and market information of China's PF industry. The data for 2021 and before are based on CCM's database and other various sources as mentioned in the section of methodology below.

2. Approach for this report

The report is based on data sourced by diverse methods, which are listed as follows:

- Desk research

Desk research includes access to published magazines, journals, government statistics, industry statistics, customs statistics, association seminars as well as information on the Internet. Much work has gone into the compilation and analysis of the information obtained. Where necessary, information has been checked and discussed internally related to market structure and performance characteristics as key producers, key end users, production levels, end user demand and so on.

- Field survey

CCM has conducted an extensive field survey using telephone interviews in order to survey the PF market in China.

The interviewees included the following groups:

- Key producers
- Key end users
- Key traders
- Material suppliers
- Associations involved
- Industry experts

- Network search

CCM employs a network to contact industry participants by using B2B websites and software.

- Data processing and presentation

The data collected and compiled was variously sourced from:

- CCM's database
- Published articles from periodicals, magazines, journals and third party databases
- Statistics from governments and international institutes
- Telephone interviews with domestic producers, joint ventures, service suppliers and government agencies
- Third-party data providers
- Customs statistics
- Comments from industrial experts
- Professional databases
- Information from the Internet

The data has been combined and cross-checked to ensure that this report is as accurate and methodologically sound as possible. Throughout the process, a series of discussions were held within CCM to systematically analyze the data and draw appropriate conclusions.

3. Executive summary

China's paraformaldehyde (PF) industry has witnessed a steady development in the past ten years. The output of PF increased greatly, with a CAGR of XXX from 2012 to 2021.

- Production

Domestic PF production is mainly distributed in Hebei, Jiangsu, and Shandong, relying on abundant supply of methanol and convenient transportation.

Because of stricter environmental protection policies or poor performance, XXX companies stopped PF production completely in 2018 and XXX companies stopped production in 2019 and 2020 respectively. The number of PF producers in China decreased from XXX in 2017 to XXX in 2021. The national total capacity increased with fluctuations in 2017–2021, rising to XXX t/a in 2021, and the output in China rose from XXX tonnes in 2017 to XXX tonnes in 2021, driven by increasing demand at home and abroad.

- Import and export

Before 2020, China is a net PF importer. However, China's PF import volume was less than export for the first time in 2020. In 2021, China imported XXX tonnes of PF. The top three import origins were Spain, Taiwan Province and the US, with a combined share of XXX of the total.

China's export volume of PF kept decreasing in 2015–2018. The downtrend reversed in 2019, with PF export volume jumping by XXX year on year to XXX tonnes, due to a decline in PF supply in Taiwan Province. As COVID-19 hit hard foreign production of PF in 2021, China's PF export increased to XXX tonnes, up nearly XXX year on year.

The PF export volume of the top five destinations (Djibouti, South Korea, Nigeria, Kenya and Myanmar, over XXX tonnes each) in 2021 together accounted for XXX of year's national total.

- Technology

In China, there are two main technologies to produce PF, namely rake drying method and spray drying method. Although the rake drying method still lags behind the spray drying method both in quality and environmental friendliness, it is adopted by most Chinese PF producers due to its low investment amount. In 2021, XXX PF producers adopted rake drying method with a share of XXX by capacity.

- Price

Generally, the price fluctuation of PF in China is greatly influenced by raw materials, methanol or formaldehyde. In 2021, the ex-works price of PF saw an uptrend, following the increasing prices of formaldehyde and methanol.

- Consumption

In China, PF is mainly consumed in agrochemical, resin and pharmaceutical industries, etc. The agrochemical industry is the largest consumption field of PF, taking up XXX of the total domestic PF consumption in 2021. Glyphosate technical (AEA pathway) is the largest end-use segment, and the consumption of PF in glyphosate accounted for XXX of the national total in 2021. The consumption of PF in resin industry occupied XXX share to the national total in 2021.

4. What's in this report?

Note: Key data/information in this sample page is hidden, while in the report it is not.

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2 Production situation of PF in China

2.1 Producers of PF in China

XXX companies related to PF were studied. As of March 2022, CCM finds,

- XXX of them were active producers;
- XXX of them suspended production;
- XXX of them were potential producers.

These XXX potential producers include those finished construction but have not put into production yet, those under construction and those have just published environment impact assessment of PF projects as of March 2022.

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Table 2.1-2 Capacity and output of major PF producers in China, 2019–Q1 2022

No.	Producer	Capacity, t/a				Output, tonne			
		2019	2020	2021	Q1 2022	2019	2020	2021	Q1 2022
1	Zhenjiang LCY Performance Materials Co., Ltd.	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
2	Fuhua Tongda Agro-chemical Technology Co., Ltd.	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
...	...	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
...	...	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

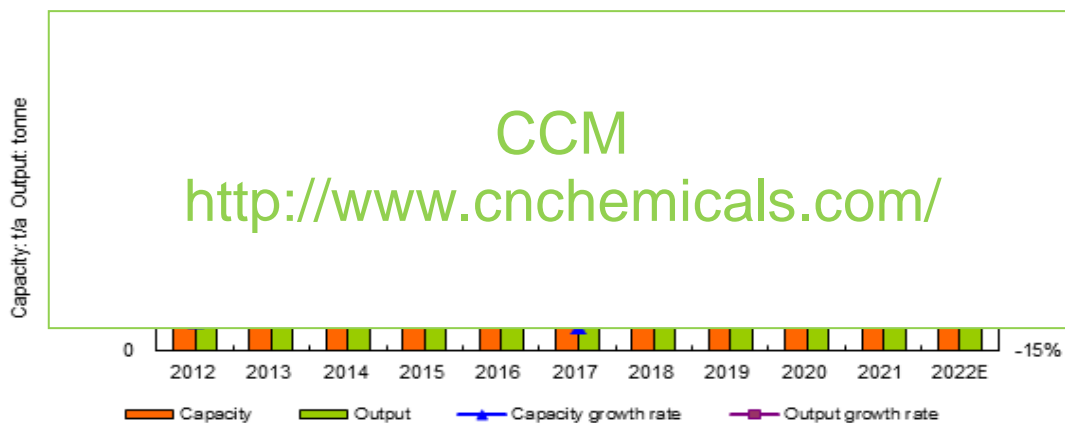
Source: CCM

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2.2 Capacity and output of PF

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Figure 2.2-1 Capacity and output of PF in China, 2012–2022E



Note: "E" means estimated.

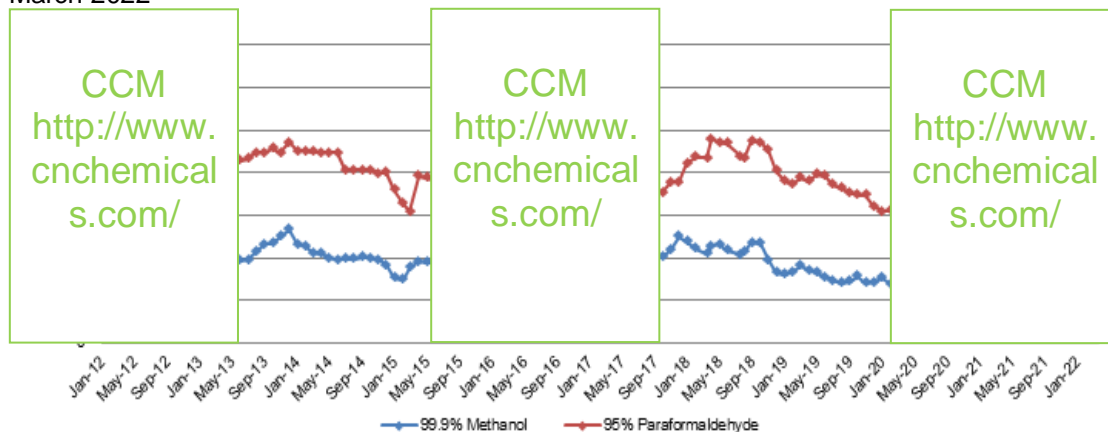
Source: CCM

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2.3 Price of PF

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Figure 2.3-1 Monthly ex-works price of 95% PF and 99.9% methanol in China, Jan. 2012–March 2022



Source: CCM

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2.4.1 Supply of formaldehyde in China

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Table 2.4.1-1 Production, import, export and apparent consumption of formaldehyde in China, 2012–2021

Year	Capacity, t/a	Output, tonne	Growth rate of output	Import volume, tonne	Export volume, tonne	Apparent consumption, tonne
2012	XXX	XXX	XXX	XXX	XXX	XXX
2013	XXX	XXX	XXX	XXX	XXX	XXX
...	XXX	XXX	XXX	XXX	XXX	XXX
2020	XXX	XXX	XXX	XXX	XXX	XXX
2021	XXX	XXX	XXX	XXX	XXX	XXX

...

3 Import & export analysis of PF

3.1 Overall situation of PF trading

The domestic PF is more and more popular with customers at home and abroad, because of its high quality and low price in recent years. From 2010 to 2014, the export volume of PF in China kept increasing, while the import volume of PF fluctuated.

In 2015, both export volume and import volume of PF in China decreased, down by XXX% and XXX% respectively compared with those in 2014.

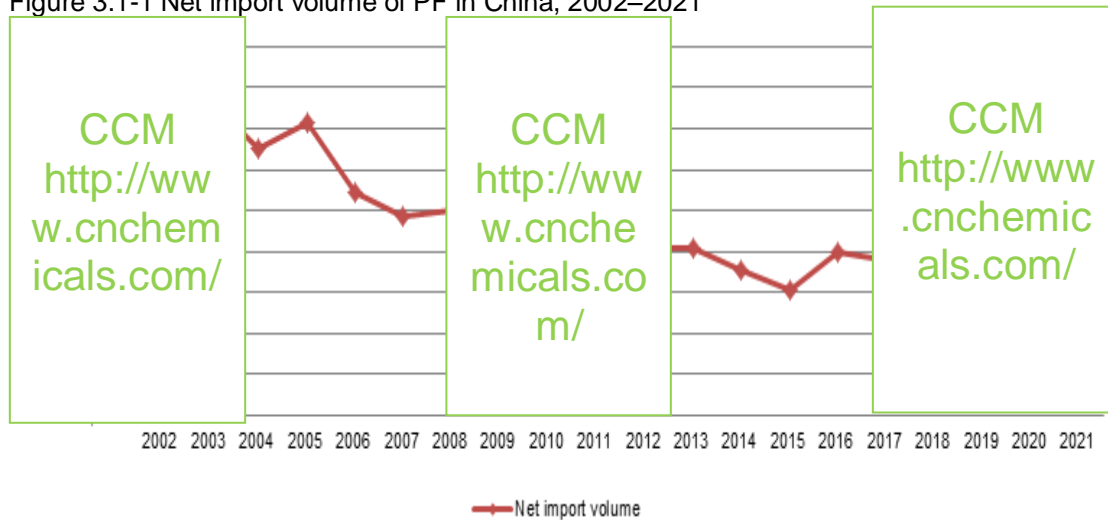
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Table 3.1-1 China's imports and exports of PF, 2002–2021

Year	Import			Export		
	Volume, tonne	Value, USD	Average price, USD/t	Volume, tonne	Value, USD	Average price, USD/t
2002	XXX	XXX	XXX	XXX	XXX	XXX
2003	XXX	XXX	XXX	XXX	XXX	XXX
...	XXX	XXX	XXX	XXX	XXX	XXX
2020	XXX	XXX	XXX	XXX	XXX	XXX
2021	XXX	XXX	XXX	XXX	XXX	XXX

Source: China Customs & CCM

Figure 3.1-1 Net import volume of PF in China, 2002–2021



Source: China Customs & CCM

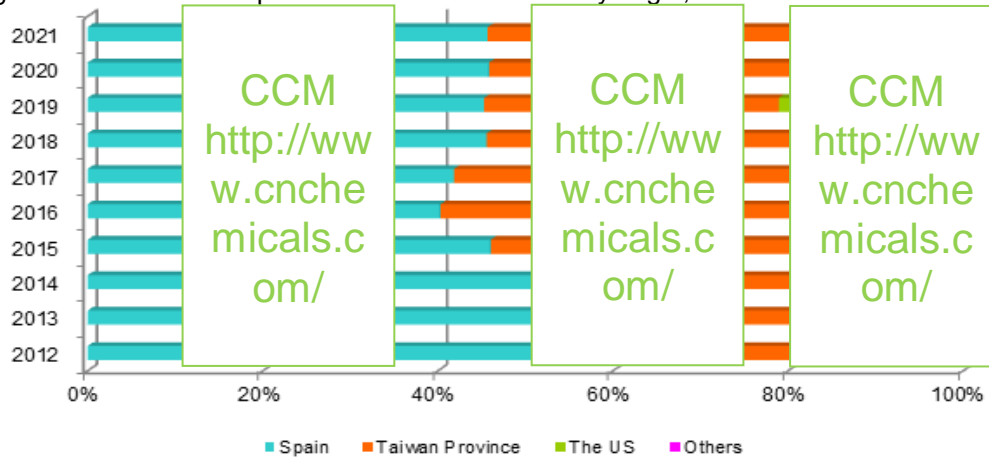
3.2 Import analysis of PF 2021

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- Import origin

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Figure 3.2-2 Share of imported PF volume to China by origin, 2012–2021



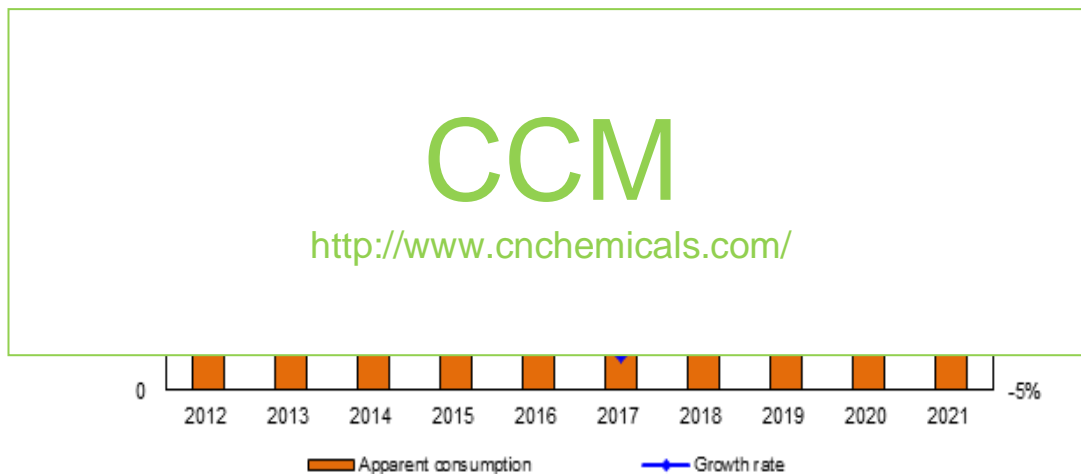
Source: China Customs & CCM

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4 End use segments of PF in China

On the whole, the apparent consumption of PF in China is increasing steadily, at a CAGR of XXX during 2012–2021.

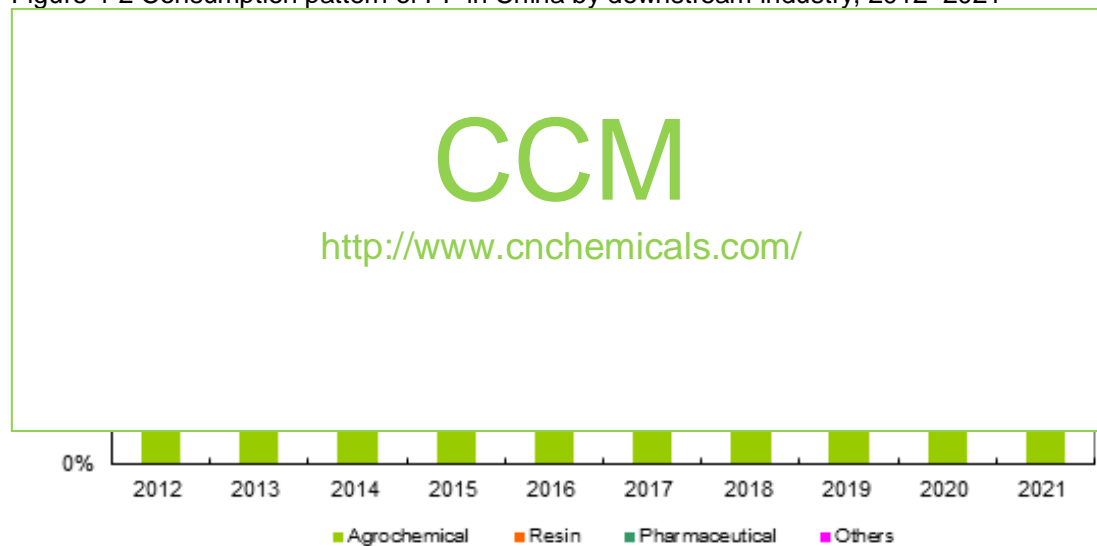
Figure 4-1 Apparent consumption of PF and its growth rate in China, 2012–2021



Source: CCM

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Figure 4-2 Consumption pattern of PF in China by downstream industry, 2012–2021



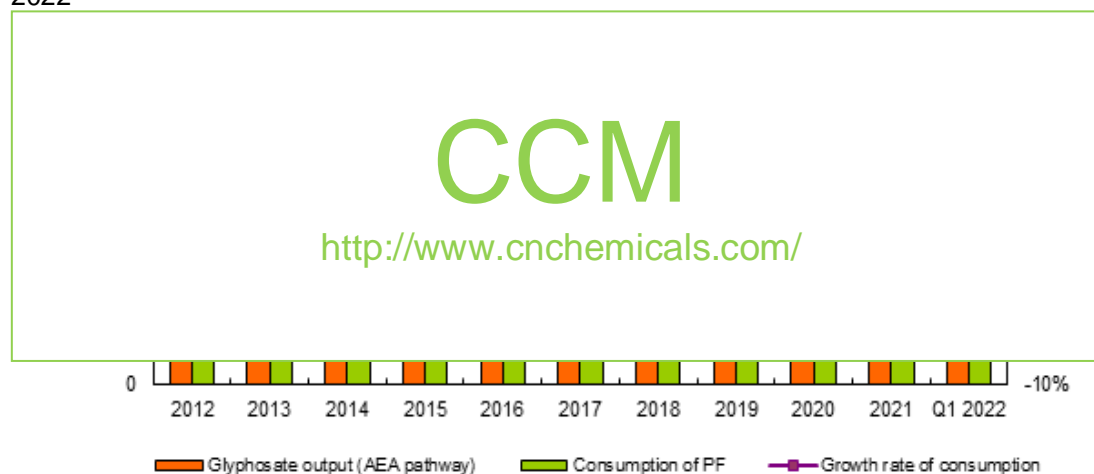
Source: CCM

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4.1 Consumption of PF in glyphosate

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Figure 4.1-1 Consumption of PF in glyphosate production (AEA pathway) in China, 2012–Q1 2022



Source: CCM

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4.1.2 Routes for glyphosate production

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Table 4.1.2-2 Capacity and output of glyphosate technical by pathway in China, 2012–2021

Pathway		2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
AEA	Capacity, t/a	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
	Output, tonne	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
	Growth rate of output	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
	Operating rate	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
IDA	Capacity, t/a	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
	Output, tonne	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
	Growth rate of output	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
	Operation rate	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
Total	Capacity, t/a	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
	Output, tonne	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
	Growth rate of output	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
	Operating rate	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX

Note: Total capacity (output) = Capacity (output) of AEA pathway + Capacity (output) of IDA pathway

Total growth rate of output = (Total output this year / Total output last year) - 1

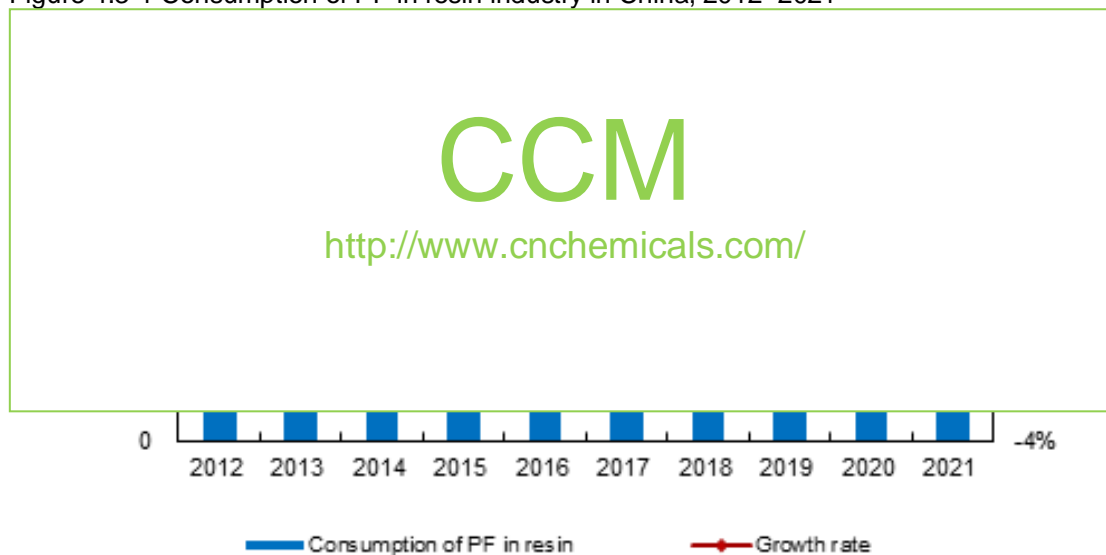
Total operating rate = Total output / Total capacity

Source: CCM

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4.3 Consumption situation of PF in resin industry

Figure 4.3-1 Consumption of PF in resin industry in China, 2012–2021



Source: CCM

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China's PF consumption in resin industry was about XXX tonnes in 2021 with a year-on-year growth rate of XXX%, taking up about XXX% of the total domestic PF consumption.

Table 4.3-1 List of some key end users of PF in resin industry in China, 2021

No.	End user	Location	PF consumption, tonne	Product consuming PF	Ownership	Telephone
1	Chang Chun Chemical (Jiangsu) Co., Ltd.	XXX	XXX	XXX	XXX	XXX
2	XXX	XXX	XXX	XXX	XXX	XXX
...	XXX	XXX	XXX	XXX	XXX	XXX
16	XXX	XXX	XXX	XXX	XXX	XXX
Total		/	XXX	/	/	/

Source: CCM

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5 Forecast on PF industry in China

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5.2 Supply and demand forecast on PF 2022–2026

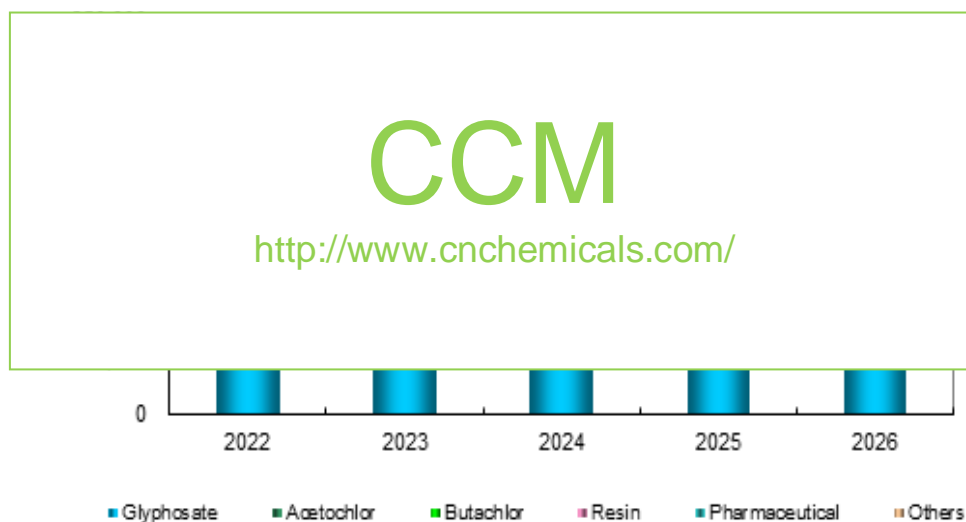
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Figure 5.2-1 Forecast on demand for PF in China, 2022–2026



Source: CCM

Figure 5.2-2 Forecast on PF consumption by product in China, 2022–2026

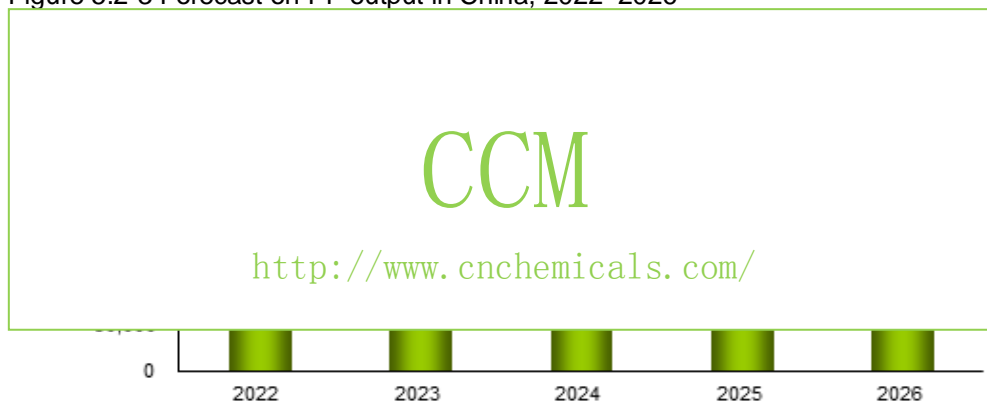


Source: CCM

Supply forecast to 2026

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Figure 5.2-3 Forecast on PF output in China, 2022–2026



Source: CCM

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Table 5.2-1 New/expansion projects of PF in China, as of March 2022

No.	Company	Location	Technology source	Technology	Capacity, t/a	Remark
1	XXX	XXX	XXX	XXX	XXX	XXX
2	XXX	XXX	XXX	XXX	XXX	XXX
...	XXX	XXX	XXX	XXX	XXX	XXX

Source: CCM

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If you want more information, please feel free to contact us.

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