

Survey of Fluor Polymer in China

The Fourth Edition

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Contents

Executive summary	1
Methodology	2
1 Brief introduction to fluor polymer	4
2 Raw materials	5
2.1 Fluorite	5
2.1.1 Fluorite reserves	5
2.1.2 Production situation	6
2.1.3 Price	7
2.1.4 Export and import.....	8
2.2 Anhydrous hydrogen fluoride	11
2.2.1 Production situation	11
2.2.2 Price	13
2.2.3 Import and export	14
2.3 R22.....	16
2.3.1 Production situation	16
2.3.2 Price	20
2.3.3 Export.....	21
2.3.4 Consumption	22
2.4 VDF	24
2.5 HFP	25
3 Fluor resin	27
3.1 Overview	27
3.2 Technology	27
3.3 Production and market situation of major products	28
3.3.1 PTFE	28
3.3.2 PVDF.....	33
3.3.3 FEP	37
3.3.4 PFA	39
3.3.5 ETFE	39
4 Fluor rubber	41
4.1 Overview	41
4.2 Technology	41
4.3 Production situation.....	42
4.4 Future trends.....	43

LIST OF TABLES

Table 2.1.2-1 Main active fluorite manufacturers in China, 2020–2021
Table 2.1.4-1 Imports and exports of fluorite ($\text{CaF}_2 > 97\%$) in China, 2017–2021
Table 2.1.4-2 Imports and exports of fluorite ($\text{CaF}_2 \leq 97\%$) in China, 2017–2021
Table 2.2.1-1 Main active AHF manufacturers in China, 2020–2021
Table 2.2.1-2 Capacity and share of main AHF manufacturers in China, 2020–2021
Table 2.2.1-3 Output and share of main AHF manufacturers in China, 2020–2021
Table 2.2.3-1 Imports and exports of AHF in China, 2017–2021
Table 2.3.1-1 Active R22 manufacturers in China, 2020–2021
Table 2.3.3-1 Exports of R22 in China, 2017–2021
Table 2.3.4-1 Consumption of R22 in non-ODS field in China, 2017–2021
Table 2.3.4-2 Consumption quota of R22 in ODS field in China, 2017–2021
Table 2.3.4-3 R22 quota allocation for room air conditioner industry, 2021
Table 2.3.4-4 R22 quota allocation for refrigeration and air conditioning in industrial and commercial application, 2021
Table 2.4-1 Manufacturers of VDF in China, 2021

Table 2.5-1 Main active manufacturers of HFP in China, 2020–2021
Table 3.3.1.1-1 Main active manufacturers of PTFE in China, 2020–2021
Table 3.3.1.1-2 Capacity and share of PTFE manufacturers in China, 2020–2021
Table 3.3.1.1-3 Output and share of PTFE manufacturers in China, 2020–2021
Table 3.3.1.3-1 China's imports and exports of PTFE, 2017–2021
Table 3.3.2.1-1 Main active manufacturers of PVDF in China, 2020–2021
Table 3.3.2.1-2 Production share of top three PVDF manufacturers in China, 2020–2021
Table 3.3.2.3-1 Imports and exports of other kinds of fluoride polymers in China, 2017–2021
Table 3.3.3-1 Active manufacturers of FEP in China, 2020–2021
Table 3.3.4-1 List of projects expected to be built up and operate in the near future
Table 3.3.5-1 List of projects expected to be built up and operate in the near future
Table 4.3-1 Active manufacturers of fluor rubber in China, 2020–2021

LIST OF FIGURES

Figure 2.1.1-1 Global fluorite reserves, 2017–2021E
Figure 2.1.1-2 Fluorite reserves in China, 2017–2021E
Figure 2.1.2-1 Fluorite production in China, 2017–2021
Figure 2.1.3-1 Monthly ex-works price of fluorite ($\text{CaF}_2 > 97\%$) in China, Jan. 2017–June 2022
Figure 2.1.4-1 Import and export volume of fluorite in China, 2017–2021
Figure 2.1.4-2 Top ten fluorite import origins to China by volume, 2021
Figure 2.1.4-3 Top ten export destinations of fluorite from China by volume, 2021
Figure 2.2.1-1 Capacity and output of AHF in China, 2017–2021
Figure 2.2.2-1 Monthly ex-works price of AHF in China, Jan. 2017–June 2022
Figure 2.2.3-1 Import and export of AHF in China, 2017–2021
Figure 2.2.3-2 Top import origins of AHF to China by volume, 2021
Figure 2.2.3-3 Top ten export destinations of AHF from China by volume, 2021
Figure 2.3.1-1 Capacity and output of R22 in China, 2017–2021
Figure 2.3.1-2 Production quota of R22 in China, 2017–2021
Figure 2.3.2-1 Ex-works price of R22 in China, Jan. 2017–June 2022
Figure 2.3.3-1 Export volume of R22 in China, 2017–2021
Figure 2.3.3-2 Top ten export destinations of R22 from China by volume, 2021
Figure 2.3.4-1 Apparent consumption of R22 in China, 2017–2021
Figure 2.5-1 Capacity and output of HFP in China, 2017–2021
Figure 2.5-2 Ex-works price of HFP in China, Jan. 2017–June 2022
Figure 3.3.1.1-1 Capacity and output of PTFE in China, 2017–2021
Figure 3.3.1.2-1 Ex-works price of PTFE in China, Jan. 2017–June 2022, USD/t
Figure 3.3.1.3-1 China's imports and exports of PTFE, 2017–2021
Figure 3.3.1.3-2 Top ten export destinations of PTFE from China by volume, 2021
Figure 3.3.1.3-3 Top ten import origins of PTFE in China by volume, 2021
Figure 3.3.2.1-1 Capacity and output of PVDF in China, 2017–2021
Figure 3.3.2.2-1 Ex-works price of PVDF in China, Jan. 2017–June 2022
Figure 3.3.2.3-1 Imports and exports of other kinds of fluoride polymers in China, 2017–2021
Figure 3.3.2.3-2 Top ten import origins of other kinds of fluoride polymers in China by volume, 2021
Figure 3.3.2.3-3 Top ten export destinations of other kinds of fluoride polymers from China by volume, 2021
Figure 3.3.3-1 Capacity and output of FEP in China, 2018–2021
Figure 4.3-1 Capacity and output of fluor rubber in China, 2017–2021

1. Introduction

The report provides you with detailed information of the fluor polymer industry in China, including raw materials, major fluor resin and fluor rubber manufacturers, production situation, price analysis, import and export, and future forecasts.

The key points of this report are listed as below:

- ✓ Fluor polymer development in China
- ✓ Key materials of fluor polymer in China
- ✓ Production of fluor polymer in China
- ✓ Import and export analysis
- ✓ Price analysis of fluor polymer in China
- ✓ Future forecast

2. Approach for this report

The report is drafted by diverse methods as follows:

1) Desk research

The sources of desk research are various, including published magazines, journals, government statistics, industrial statistics, customs statistics, association seminars as well as information from the Internet. A lot of work is done on the compilation and analysis of the obtained information. Where necessary, checks are made with all kinds of suppliers regarding market information such as key producers, key end-users, production, consumption, export, demand and so on.

2) Telephone interviews

CCM has carried out extensive telephone interviews in order to track the actual market situation of the fluorine industry in China.

Interviewees cover:

- Major producers of fluor polymer
- Major producers of fluor rubber
- Major producers of semi-finished products
- Major producers of finished products
- Major traders
- Suppliers of fluorspar, AHF, R22, HFP and VDF
- Associations

3) Network search

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

4) Data processing and presentation

The data collected and compiled is 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
- Information from the Internet

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

3. Executive summary

There are two main varieties of fluoropolymer in China, including fluororesin and fluororubber. The output of fluoropolymer was more than XXX tonnes in China in 2021. The fluoropolymer industry, especially fluororesin, is developing very quickly in China but facing many problems such as the inefficient technology and the lack of high-end products. Compared with foreign capital and foreign enterprises, there is still a certain gap in the product brand of fluoropolymer and technology in China, showing that fluorinated enterprises still have a lot of room for development.

In China, fluororesin is widely used in coatings, sealing, architecture, electronics and other fields. There were XXX enterprises producing polytetrafluoroethylene (PTFE) in 2021, and China has become one of the most important producers of PTFE in the world. The production of PTFE accounted for more than half of the production of fluororesin in China, with a capacity of XXX t/a and an output of XXX tonnes in 2021.

Polyvinylidene fluoride (PVDF) and fluorinated ethylene propylene (FEP) industries in China have developed quickly in the past few years. The capacities of PVDF and FEP were XXX t/a and XXX t/a in 2021 respectively. There were XXX enterprises producing PVDF and XXX enterprises producing FEP in China in 2021. PVDF coating is the most important application field of PVDF, and most FEP is mainly used in communications cables and wires.

Although perfluoroalkoxy alkane (PFA) and ethylene tetrafluoroethylene (ETFE) markets are still small, these two fluororesins have already started batch production. Some products of PFA and ETFE still need to be imported, mainly from Japan and the US. PFA and ETFE are mainly used in the high-end market and have good prospects for development.

In recent years, along with the development of automobile and petrochemical industry, the fluororubber develops rapidly with an output of XXX tonnes in 2021. However, the lack of varieties and backward processing technology have constrained the development of the fluororubber industry in China.

4. What is in the report?

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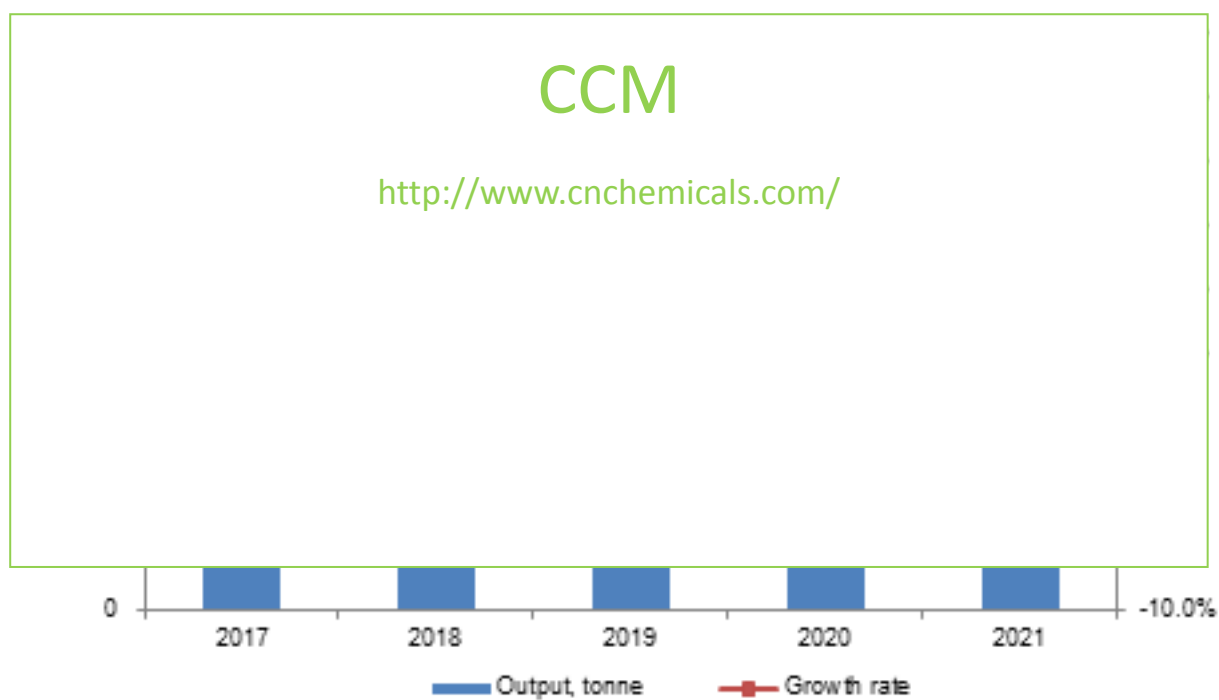
2 Raw materials

2.1 Fluorite

2.1.1.2 Production situation

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Figure 2.1.2-1 Fluorite production in China, 2017–2021



Note: Calculated as 100% CaF_2

Source: China Non-Metallic Minerals Industry Association & CCM

...

Table 2.1.2-1 Main active fluorite manufacturers in China, 2020–2021

No.	Producer	Location	Capacity, t/a		Output, tonne	
			2021	2020	2021	2020
1	China Kings Resources Group Co., Ltd.	Zhejiang	XXX	XXX	XXX	XXX
...	...	XXX	XXX	XXX	XXX	XXX
...	...	XXX	XXX	XXX	XXX	XXX

...

2.1.3 Price

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Figure 2.1.3-1 Monthly ex-works price of fluorite ($\text{CaF}_2 > 97\%$) in China, Jan. 2017–June 2022



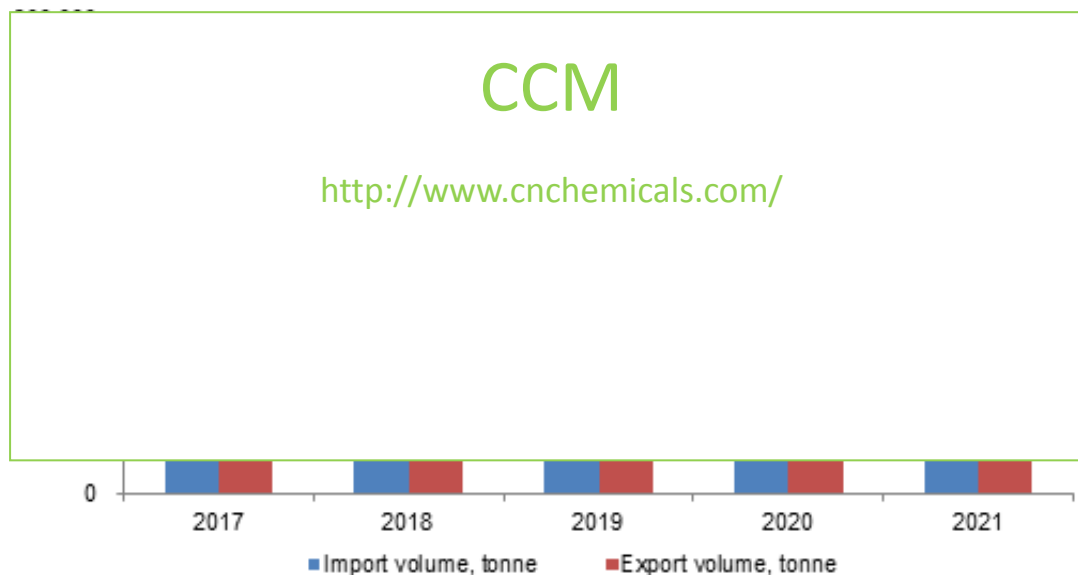
Source: CCM

2.1.4 Export and import

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Table 2.3.1.4-1 Imports and exports of fluorite ($\text{CaF}_2 > 97\%$) in China, 2016–H1 2020

Figure 2.1.4-1 Import and export volume of fluorite in China, 2017–2021



Note: Fluorite ($\text{CaF}_2 > 97\%$) and fluorite ($\text{CaF}_2 \leq 97\%$) are included.

Source: China Customs & CCM

Table 2.1.4-1 Imports and exports of fluorite ($\text{CaF}_2 > 97\%$) in China, 2017–2021

Year	Import			Export		
	Volume, tonne	Value, USD	Annual average price, USD/t	Volume, tonne	Value, USD	Annual average price, USD/t
2017	XXX	XXX	XXX	XXX	XXX	XXX
2018	XXX	XXX	XXX	XXX	XXX	XXX
2019	XXX	XXX	XXX	XXX	XXX	XXX
2020	XXX	XXX	XXX	XXX	XXX	XXX
2021	XXX	XXX	XXX	XXX	XXX	XXX

Note: $\text{CaF}_2 > 97\%$: containing more than 97% calcium fluoride by weight

Source: China Customs & CCM

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3.3 Production and market situation of major products

3.3.1 Polytetrafluoroethylene (PTFE)

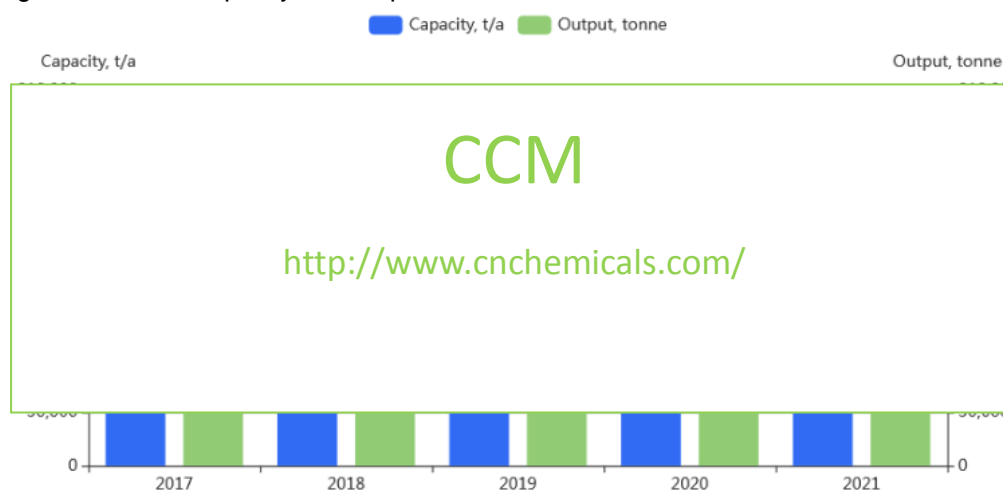
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3.3.1.1 Production situation

China has become one of the most important manufacturers of PTFE in the world. The capacity of PTFE in China increased from XXX t/a in 2017 to XXX t/a in 2021, at a CAGR of XXX. During 2017–2020, the industry slowed down its expansion. However, the industry ushered in a new round of capacity expansion as several planned new projects brought into operation in 2021.

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Figure 3.3.1.1-1 Capacity and output of PTFE in China, 2017–2021



Source: CCM

Table 3.3.1.1-1 Main active manufacturers of PTFE in China, 2020–2021

No.	Producer	Location	Capacity, t/a		Output, tonne	
			2021	2020	2021	2020
1	Dongyue Group Ltd.	Shandong	XXX	XXX	XXX	XXX
...	...	XXX	XXX	XXX	XXX	XXX
...	...	XXX	XXX	XXX	XXX	XXX

Source: CCM

...

3.3.1.2 Price

Figure 2.4.1.2-1 Monthly ex-works price of PTFE in China, Jan. 2016–June 2020, USD/t



Source: CCM

2.4.1.3 Export and import

...

Figure 3.3.1.3-1 China's imports and exports of PTFE, 2017–2021

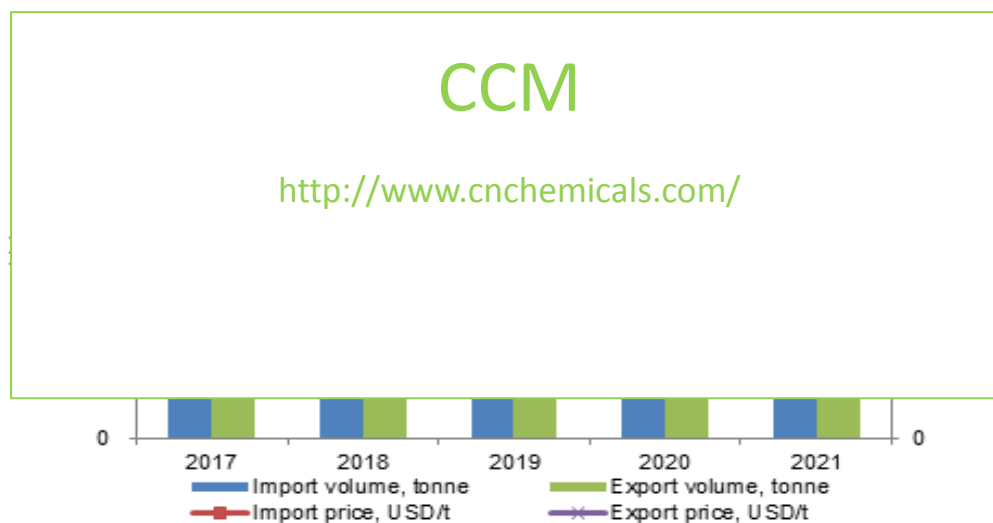


Table 3.3.1.3-1 China's imports and exports of PTFE, 2017–2021

Year	Import			Export		
	Volume, tonne	Value, USD	Price, USD/t	Volume, tonne	Value, USD	Price, USD/t
2017	XXX	XXX	XXX	XXX	XXX	XXX
2018	XXX	XXX	XXX	XXX	XXX	XXX
2019	XXX	XXX	XXX	XXX	XXX	XXX
2020	XXX	XXX	XXX	XXX	XXX	XXX
2021	XXX	XXX	XXX	XXX	XXX	XXX

Source: China Customs & CCM

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