

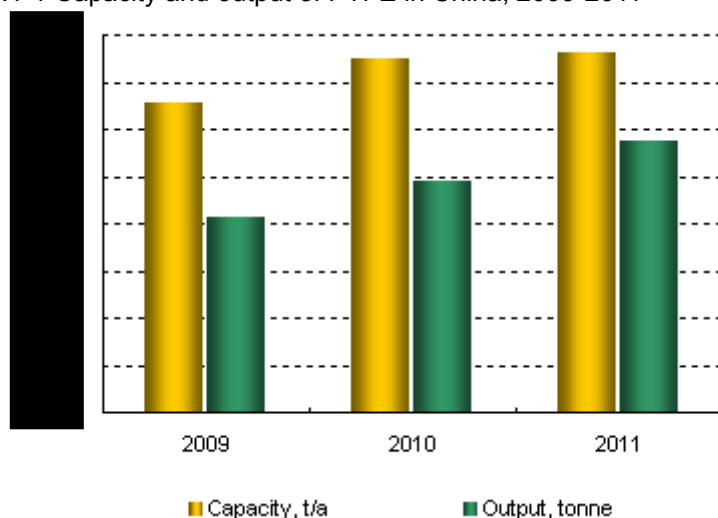
Note: Key data/information in these pages is hidden, while it is not in the report.

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1.1.1 PTFE (4 grades)

China has become one of most important producers of PTFE in the world, with total capacity of XXXt/a and output of XXX tonnes in 2011. In the past three years, the output of PTFE has increased from XXX tonnes in 2009 to XXX tonnes in 2011.....

Figure 1.1.1-1 Capacity and output of PTFE in China, 2009-2011



Source: CCM International

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1.2 Overview of producers (2009-2011)

1.2.1 PTFE (4 grades)

Table 1.2.1-1 Capacity and output of top five PTFE producers in China, 2011

Company	Molding grade		Fine powder		Aqueous dispersion	
	Capacity, t/a	Output, tonne	Capacity, t/a	Output, tonne	Capacity, t/a	Output, tonne
Dongyue Group	xxx	xxx	xxx	xxx	xxx	xxx
Zhonghao	xxx	xxx	xxx	xxx	xxx	xxx
Chenguang Institute Co., Ltd.						
Shanghai 3F New Material Co., Ltd.	xxx	xxx	xxx	xxx	xxx	xxx
	xxx	3,000	xxx	3,000	xxx	1,000
	xxx	3,000	xxx	500	xxx	500
Total	xxx	xxx	xxx	xxx	xxx	xxx

Source: CCM International

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1.3 Overview of semi-finished product producers

1.3.1 PTFE

- Molding grade

There are hundreds of companies processing PTFE molding grade, with processing capacity ranging from less than 100t/a to around 1,000t/a. Most of them are small and focus on processing basic semi-finished products, with processing capacity less than 100t/a. Only a few of them have the capacity of around 1,000t/a, like Ningbo Changqi Fluorine Plastic Products Co., Ltd. (Ningbo Changqi) which is the biggest PTFE processing company in China.

- Fine powder

There are over XXX processing companies of fine powder in China. The processing capacity of XXX is the largest among all semi-finished products of PTFE fine powder, accounting for about XXX% of the total in China. Furthermore, there are about XXX major producers of XXX, such as

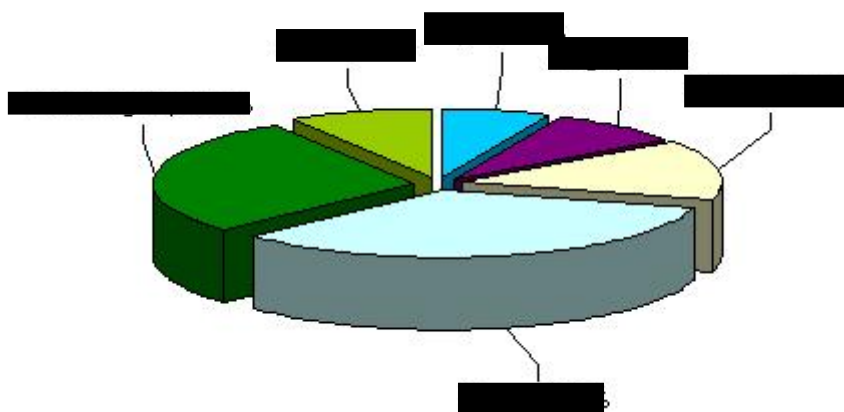
1.4 Raw material

1.4.1 Fluorspar

- Overview of fluorspar reserves in China

In 2011, China's total proven reserves of fluorspar are about XXX million tonnes. Two large fluorspar mines are found in Inner Mongolia Autonomous Region, with about XXX million tonnes of proven reserves of fluorspar.....

Figure 1.4.1-1 Fluorspar proven reserve distribution in China, 2011



Source: CCM International

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1.4.3 HCFC-22 (Including seasonal demand)

- Production

Currently, HCFC-22 is the major fluor refrigerant in China, accounting for about XXX% of the total fluor refrigerant consumption volume. Domestic capacity and output of HCFC-22 are about XXXt/a and about XXX tonnes in 2011, increasing by XXX% and XXX% respectively compared with those in 2010. Dongyue Group Ltd. (Dongyue Group) and Jiangsu Meilan Chemical Group Co., Ltd. (Jiangsu Meilan) expand their capacity of HCFC-22 with XXXt/a and XXXt/a in 2011. Their total expansion capacity accounts for about XXX% of the total new capacity in China in 2011.

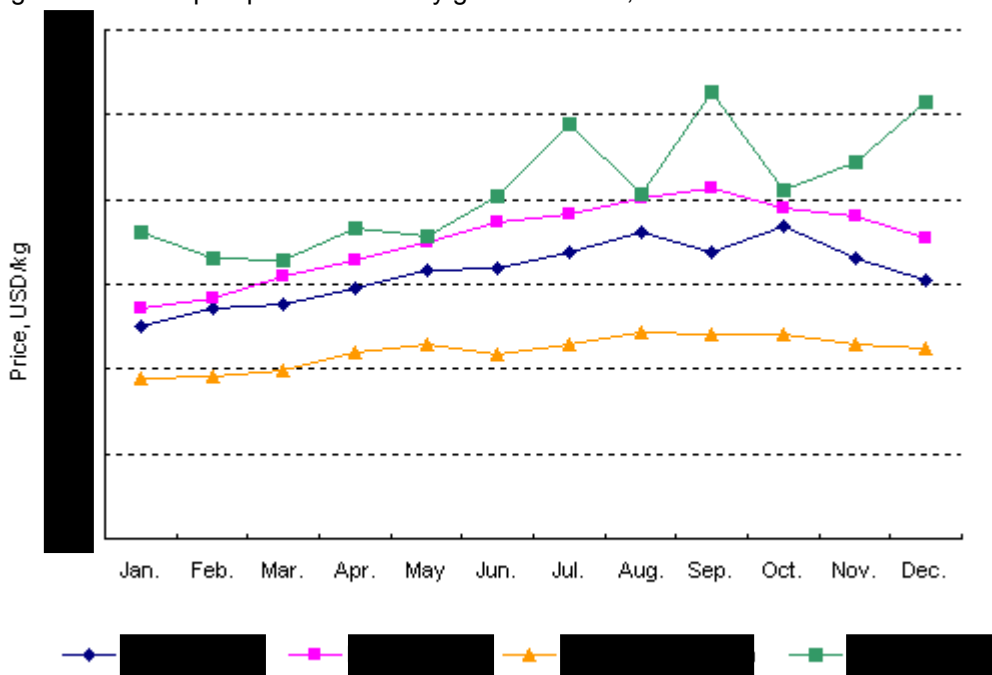
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4.2.1 PTFE (4 grades)

- Export situation

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Figure 4.2.1-1 Export price of PTFE by grade in China, 2011



Source: China Customs, CCM International

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4.3 Consumption volume

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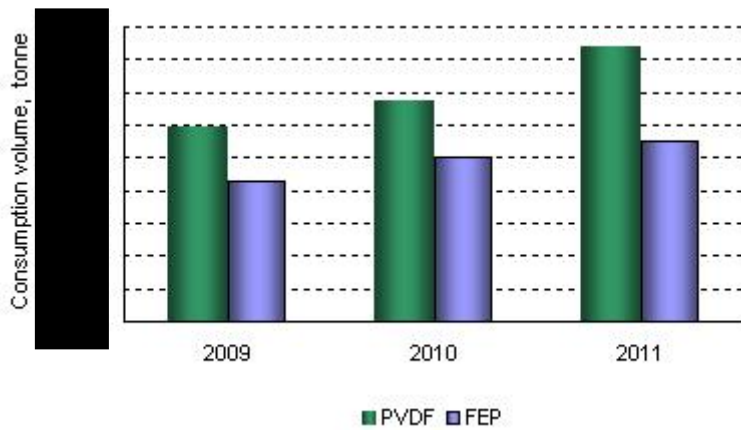
This table is about consumption of PTFE molding grade, cut out from *Consumption matrix for fluors polymer in China.xls*

Item	Year	Total	Semi-finished product	I Gasket		...		...
			Industry	I-1 Automobile		...	I-2 Mechanical	...
			Finished goods	I-1.1 Car	I-1.2 Truck	...	...	...
Output of finished goods segment (unit or tonne)	2009	/	/	10,383,831	2,326,260	...	...	...
	2010	/	/	13,897,083	2,854,778	...	...	...
	2011	/	/	14,420,000	2,654,000	...	...	...
Application percent, %	2009	/	/	XXX	XXX	...	...	...
	2010	/	/	XXX	XXX	...	...	...
	2011	/	/	XXX	XXX	...	...	...
Usage	2009	/	/	XXX	XXX	...	...	...
	2010	/	/	XXX	XXX	...	...	...
	2011	/	/	XXX	XXX	...	...	...
Consumption volume	2009	XXX	/	XXX	XXX	...	...	...
	2010	XXX	/	XXX	XXX	...	...	...
	2011	XXX	/	XXX	XXX	...	...	...
	CAGR	XXX%	/	XXX%	XXX%	...	...	...
Expected growth rate, % (Substitutes between different fluoropolymers would be considered.)	2012	/	/	XXX%	XXX%	...	...	...
	2013	/	/	XXX%	XXX%	...	...	...
	2014	/	/	XXX%	XXX%	...	...	...
	2015	/	/	XXX%	XXX%	...	...	...
	2016	/	/	XXX%	XXX%	...	...	...
Demand volume	2012	XXX	/	XXX	XXX	...	...	...
	2013	XXX	/	XXX	XXX	...	...	...
	2014	XXX	/	XXX	XXX	...	...	...
	2015	XXX	/	XXX	XXX	...	...	...
	2016	XXX	/	XXX	XXX	...	...	...

This table is about consumption of PTFE molding grade, cut out from *Consumption matrix for fluors polymer in China.xls*

Semi-finished product			Total	Automobile	Mechanical	.....
Consumption volume	I Gasket	2009	xxx	xxx	xxx	xxx
		2010	xxx	xxx	xxx	xxx
		2011	xxx	xxx	xxx	xxx
		2012	xxx	xxx	xxx	xxx
		2013	xxx	xxx	xxx	xxx
		2014	xxx	xxx	xxx	xxx
		2015	xxx	xxx	xxx	xxx
		2016	xxx	xxx	xxx	xxx
	II Tube	2009	xxx	xxx	xxx	xxx
		2010	xxx	xxx	xxx	xxx
		2011	xxx	xxx	xxx	xxx
		2012	xxx	xxx	xxx	xxx
		2013	xxx	xxx	xxx	xxx
		2014	xxx	xxx	xxx	xxx
		2015	xxx	xxx	xxx	xxx
		2016	xxx	xxx	xxx	xxx
	.....	2009	xxx	xxx	xxx	xxx
		2010	xxx	xxx	xxx	xxx
		2011	xxx	xxx	xxx	xxx
		2012	xxx	xxx	xxx	xxx
		2013	xxx	xxx	xxx	xxx
		2014	xxx	xxx	xxx	xxx
		2015	xxx	xxx	xxx	xxx
		2016	xxx	xxx	xxx	xxx

Figure 4.3-2 Consumption volume of PVDF and FEP in China, 2009-2011



Note: Consumption volume here refers to apparent consumption.

Source: CCM International

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5 Summarization of usage situation

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- PFA

◆ Current situation

XXX and XXX are the two major semi-finished products of PFA in China, accounting for XXX% of the total PFA consumption volume. XXX is generally used as sheath in electronic devices and XXX such as XXX and XXX. With the good processing performance, PFA can also be processed into welding rod to connect different parts of PTFE. The PFA consumption volume in welding rod is X tonnes in China in 2011.

◆ Comment

The market in this part is