

## السوق الإماراتي والعالمي للأنايبب المصنوعة من البولي فينيل كلورايد

### PVC Pipes Global & UAE Markets

PVC - Polyvinyl Chloride or PVC is the world's third most produced plastic after polyethylene and polypropylene. Globally, about half of the PVC manufactured is used in construction. As a building material, PVC is cheap, durable, and easy to assemble, and it has been replacing traditional building materials such as wood, concrete and clay in many areas. Its thermo-resistant structure, fire retardant fabric, as well as high quality water conduit properties in construction applications makes PVC pipes superior to most other modern materials due to environmental friendliness, chemical resistance, inherent toughness and being electrically non-conductive & non-corrosive.

Suitability for pipes - PVC is compatible with most fluids, has low cost of material handling and installation, and has highly reliable jointing system to make it suitable very suitable for piping. Being a hard substance and a versatile material, PVC lends itself very well for pipe, and plumbing and conduit fixtures. It is now widely used in the water and sewer industries because of its low cost and flexibility and has slowly replaced conventional pipes made from Galvanized Iron, Cast Iron, Asbestos Cement and Concrete Cement. PVC now dominates the world pipe market. Around 40% of all PVC produced is used in pipe and fittings. PVC demand in the Middle East and Africa is expected to outstrip production in the near future. A PVC pipe may have lifetime of up to 100 years.

AGCC and PVC – UAE is one of the highest consumers of PVC products in the region, and a major manufacturer of PVC pipes. However, UAE does not produce any PVC resins of its own. This facility is only available in Saudi Arabia where the state own plant SABIC ( Saudi Basic Industries Cooperation ) is the only producer of PVC material in the region. The other AGCC countries rely on UAE and Saudi Arabia for their requirements of PVC pipes and products. The construction sector is the principal driver of PVC demand, globally, and the same is true in AGCC. This has led to a huge requirement of PVC electric conduit pipes in building, its most important application.

Table 1 – Estimated Production of Electrical Conduit PVC Pipes, (AED Millions)

Year	Domestic Sales	Export	Production
2006	179.3	23.0	202.3
2007	208.5	29.5	238.0
2008	212.7	46.7	259.4
2009	213.2	60.7	273.9
2010	236.6	56.5	293.1

Source – UAE Trade Statistics and EIB estimates

Production in UAE – There are currently three major PVC manufacturing plants in UAE. They are producing a very large number of PVC formulations to meet a very wide range of customer demand, using most advanced high speed extrusion machines. The first plant was set up as early as 1981. Two plants are located in Sharjah and one in Dubai.

Demand and production is estimated to have grown by about 7% per annum in the last five years. A wide range of PVC compounds are processed in house in UAE. Research and development is also undertaken with extensive laboratory facilities. They cater not only to the domestic market but also exports a significant part of the production, not only in the immediate region but also as far as Europe and South East Asia. Some of the firms have their branch offices in other AGCC countries. The PVC factories in UAE do not produce only pipes but several other products as well consisting of wiring accessories, industrial products, lighting, switch gear, energy & lighting management & air inflation technology.

Imports and Re-exports – With increasing domestic production, imports of PVC pipes have been gradually decreasing. The share of imports in PVC pipes has gone down from about one quarter to about 10%. Slowdown in construction activity may have further contributed to the reduction in imports. Net imports of PVC pipes have more than halved in the last four years. Re-exports of pipes are rather significant and account for about a quarter of imports. Whereas, imports have been declining, re-exports show slight signs of increase, though more in value than in weight terms. The need for specialty grades of PVC makes most countries import some PVC products.

Table 2 - UAE Net Imports of Rigid Pipes of Polymers of Polyvinyl Chloride, tons and 000 AED

Year	Imports		Re-Exports		Net Imports	
	Qty.	Value	Qty.	Value	Qty.	Value
2006	7,497	53,352	1,365	6,732	6,132	46,620
2007	6,822	53,770	1,656	9,297	5,166	44,473
2008	6,674	49,849	1,178	8,385	5,496	41,464
2009	5,343	36,871	926	7,596	4,417	29,275
2010	4,354	31,166	1,330	9,191	3,024	21,975

Source: Custom Departments (Abu Dhabi, Dubai and Sharjah).

Exports - However, exports are significant, worth more than AED 56 million in 2010. This is approximately a quarter of production. Exports have more than doubled in the last four years – growing by two and half times. The destination is largely in the immediate region, namely predominantly the AGCC countries. More than one fifth of Oman’s requirement of PVC products (mainly pipes) comes from UAE. Bahrain is 8% and even Saudi is reported to be a purchaser of UAE PVC products (around 6%).

Table 3 - Net Imports, Plasticized Polyvinyl Chloride in Primary Form, Dubai, Tons & 000 AED

Year	Imports		Re-Exports		Net Imports	
	Qty.	Value	Qty.	Value	Qty.	Value
2008	3,633	23,033	8	138	3,625	22,895
2009	1,219	12,265	108	1,289	1,111	10,976
2010	1,805	13,008	89	618	1,716	12,389

Source: Custom Departments (Abu Dhabi, Dubai and Sharjah)

Raw material imports - Since UAE is almost entirely dependent on imported raw material, such imports provide a measure of growth of the sector. Raw material imports however, can be a bit erratic, as in Table 3. Saudi Arabia produces its own raw material and also supplies to UAE, however, Japan is the major supplier of PVC in UAE, followed by China, Thailand and after that Saudi Arabia.

Raw material manufacture – PVC material manufacture is concentrated in a few countries. Besides Saudi Arabia in AGCC, there is significant production in the immediately next region, with plants in Turkey, Egypt, and Iran. There are also smaller plants in Algeria, Libya, and Morocco. China is becoming an increasingly important source of PVC as it rapidly expands its manufacturing capability. Saudi Arabia, had announced several years ago their intention to increase their PVC capacity but so far have not done so, preferring to expand their polyolefin's capacity instead.

Global demand related to economy's growth - The market for PVC in North America and Western Europe is mature and over the last few years has contracted as a result of the recession and the decline in the construction and automotive sectors. This contrasts with its performance in China, the rest of Asia and Russia, where it has continued to expand as a result of the growth in the construction and manufacturing sectors.

Low per capita consumption of PVC and greater economic development in the fast growing developing countries of China, India and Brazil are driving the global demand for PVC in construction applications. Pipes & tubes and profiles account for the bulk of the PVC demand from this sector, with pipes & tubes accounting for nearly half the demand for PVC from construction applications. Hence, demand for PVC in construction applications from the developing countries will compensate for the slowdown in traditionally large markets of North America and Europe, and account for 61% of the global PVC demand in 2020.

Outlook – Plastic pipe products will continue to expand their share of the overall world pipe market. UAE domestic construction activity having slowed down, exports offer a good opportunity as there is high growth in the region and beyond it as well. Nevertheless, there is demand from other sectors besides construction in UAE, e.g. for large diameter pipes for applications such as desalination plants and cooling lines for power plants. Water leakage is high in the Middle East region, its address will also bring increased demand. Corrosion is a big problem in sewage pipes, so plastics pipes offer such advantages if installed correctly and if surge pressure is appropriately controlled. Market sources estimates the UAE market at one billion meters in 2012 for plastic pipes.