



The intellectual property rights of this report belong to PAGEV and cannot be quoted even partly, without being shown as a source.

## **PREFACE**

The plastic industry is one of the most important actors of the Turkish economy. Today, the contribution of the plastics industry to the country's economy is gradually increasing with the total production exceeding 9 million tons, and 33 billion dollars' worth of turnover, the approaching direct exports of 5 billion dollars and the annual growth over GDP growth rate the last 10 years.

Our industry, with its production capacity, has reached the second place in Europe and the sixth place in the world. As PAGEV, we continue to lead the industry successfully in the framework of the "Unifying Power" mission of the Turkish Plastics Industry.

We also know that having the right and reliable data and information is the most important part of the solution when we sign the indispensability of Plastics in our lives and sign our work to tackle our industrial problems with concrete steps based on scientific evidence. In this direction we constantly investigate, collect new data, compile, and report them. We present our reports that we believe are important for the development of our industry and our booklets containing important information to the plastics industry representatives, stakeholders, and public institutions.

As PAGEV, we prepared a report set that will contribute to the industry in a serious way in the face of our long and dedicated researches. With our reports, we made booklets with the comments of our expert reporters about the point where the Turkish Plastics Industry is in the right and reliable light, common problems and what should be the search for concrete solutions. We believe that our reports and information set will benefit all our stakeholders, especially our members, and will guide the plastics world. At the same time, we are pleased that our public institutions have reached the most up-to-date and accurate information about the plastics industry.

On the other hand, with our sector reports in English, we think that our colleagues will be able to share the potential of our country's plastics industry with the most up-to-date business partners in the global marketplace.

Hereby, presenting our current reports and information files relating with our industry, we would like to thank all our colleagues who have contributed to this day's achievement of our industry, who has taken a position as a locomotive mission in the development of our country.

**Best regards,  
Yavuz EROĞLU  
PAGEV President**

---

The intellectual property rights of this report belong to PAGEV and cannot be quoted even partly, without being shown as a source.

## CONTENTS

### EXECUTIVE SUMMARY

- 1. ECONOMIC SITUATION**
  - 1.1. WORLD ECONOMY**
  - 1.2. TURKISH ECONOMY**
- 2. PLASTICS END PRODUCTS INDUSTRY**
  - 2.1. COVID 19 IMPACT ON PLASTICS INDUSTRY**
  - 2.2. CAPACITY UTILIZATION**
  - 2.3. PRODUCTION**
  - 2.4. MACHINERY INVESTMENT**
  - 2.5. FOREIGN TRADE**
    - 2.5.1. IMPORTS**
    - 2.5.2. EXPORTS**
    - 2.5.3. IMPORTS AND EXPORTS BY COUNTRIES**
    - 2.5.4. IMPORT AND EXPORT PRICES**
    - 2.5.5. VALUE ADDED CREATED BY EXPORTS**
    - 2.5.6. FOREIGN TRADE SURPLUS**
  - 2.6. DOMESTIC CONSUMPTION**
  - 2.7. SUPPLY AND DEMAND AND 2020 EXPECTATIONS**
- 3. PLASTICS RAW MATERIALS INDUSTRY**
  - 3.1. PRODUCTION**
  - 3.2. FOREIGN TRADE**
    - 3.2.1. IMPORTS**
    - 3.2.2. EXPORTS**
    - 3.2.3. IMPORTS AND EXPORTS BY COUNTRIES**
    - 3.2.4. IMPORT AND EXPORT PRICES**
    - 3.2.5. FOREIGN TRADE DEFICIT**
  - 3.3. DOMESTIC CONSUMPTION**
  - 3.4. SUPPLY AND DEMAND AND 2020 EXPECTATIONS**
- 4. CONCLUSION**

---

The intellectual property rights of this report belong to PAGEV and cannot be quoted even partly, without being shown as a source.

## **EXECUTIVE SUMMARY**

With the corona virus epidemic exceeding the borders of China and spreading rapidly on a global scale, a demand-driven decline has been observed in the manufacturing industry since mid-March. Outbreak has different effects on the different subsectors of Turkish plastic industry . With the corona virus epidemic increasing in severity in Europe and the USA in March, the possibility of an economic crisis has strengthened on a global basis. While international organizations have repeatedly revised their forecasts, opinions that the world economy will contract in 2020 have gained widespread.

While domestic economic activity slowed down significantly in March due to the measures taken within the scope of the corona virus outbreak, authorities have taken various measures to limit the effects of the virus. Although the uncertainty about when the corona virus epidemic can be controlled on a global basis makes it difficult to predict the post-epidemic, the expectation that the global economy will contract in 2020 is becoming increasingly common. Turkey's economy adversely affects by the developments in EU countries, the predictions for the coming period are becoming harder.

Capacity utilization in the plastics industry was higher in the first 3 months of 2020 compared to the same months of 2019. However, it is seen that the capacity utilization in April, May and June fell well behind the same months of 2019.

With the effect of the decline in domestic and foreign demand caused by the corona virus epidemic in March - May, the production of plastic products realized by 4.8 million tons and 16,6 billion dollars decreasing by 4.8% on amount and 7.9% on value basis in the first half of 2020 compared to the same period of 2019.

it is estimated that production will realize as 8,9 million tons and 30,9 billion dollars in 2020, decreasing by 3.5% on amount and 5.6% on value basis compared to 2019.

According to various financial institutions, Turkey's economy is expected to shrink by at least 5% in 2020. Developments of Turkey and the world economy shows some positive developments will continue to monitor the possible risk factors. For this reason, generally uncertainty is predicted to lead to risk aversion and a prudent use of resources.

---

The intellectual property rights of this report belong to PAGEV and cannot be quoted even partly, without being shown as a source.

## **1. ECONOMIC SITUATION**

### **1.1. WORLD ECONOMY**

- According to the data of the World Health Organization, the Covid-19 outbreak, in which the number of cases exceeded 10 million as of the end of June, continues to have an impact on global economic activity. While the virus has spread rapidly especially in Central and South American countries and India, concerns regarding the second wave epidemic are frequently expressed in the rest of the world.
- Although significant progress has been made in the direction of normalization since May, current developments cause restriction measures to come back to the agenda in some regions and bring about a downward revision of global growth forecasts.
- In this framework, while it is announced that monetary policies will continue to remain in an expansionary direction on a global scale, opinions regarding the need to use fiscal policies more effectively in this process are gaining weight.
- In the update report of "Global Economic Outlook" by IMF announced in June, it renewed its forecast of 3% contraction in 2020 global economic activity to 4.9%. While the organization has reduced its growth forecast for 2021 from 5.8% to 5.4%, it points out that a new epidemic may reduce growth by 0.5%. The IMF predicts that in 2020, the USA will shrink by 8% and the Euro Area by 10.2%, stating that developed economies are more affected by the epidemic. IMF explained that China's economy is expected to show growth this year. IMF predicted that Turkey's economy will grow at the same rate next year after shrinking 5% in 2020.
- The World Bank announced that it predicts a 5.2% contraction this year and a 4.2% growth in 2021 in the global economy. Projecting that developed economies will contract by 7% this year, the World Bank expects emerging economies to shrink by 2.5%. The organization anticipates emerging economies in parallel with Turkey's economy will grow 5% in 2021 after shrinking 3.8% in 2020.
- The OECD, on the other hand, explains its forecasts according to 2 different scenarios, based on the assumption that the epidemic is under control or that a second wave will occur until the end of this year. Accordingly, in the scenario where the epidemic is under control, it is predicted that the global economy will contract by 6% this year and expand by 5.2% in 2021. In the scenario where the second wave is assumed to be experienced, the global economy is expected to shrink by 7.6% this year and grow by 2.8% in 2021. Turkey's economy in 2020 also under the scenario is projected to shrink from 4.8% and 8.1%, respectively. In both scenarios, it is stated that it will take a long time for the world economy to reach pre-pandemic levels and the crisis will have long-term negative effects on living standards, unemployment, and investments.

---

The intellectual property rights of this report belong to PAGEV and cannot be quoted even partly, without being shown as a source.

- Due to the rising tensions between the USA and China due to the Hong Kong and Covid-19 outbreak, the US administration's statements regarding the end of the trade agreement between the two countries increase uncertainties on a global scale.
- The announcement of the USA that it may impose additional customs duties on some products imported from Europe due to the dispute in the global aviation sector causes the commercial tension between the USA and the EU to increase. As a matter of fact, it is stated that the USA may impose additional customs duty on products with an amount of over 3 billion dollars imported from the EU.
- The data announced in the USA give signals that the economic activity has recovered with the support of the normalization steps taken in the country.
- At its June meeting, the Fed did not change the policy rate of interest, keeping it in the range of 0% -0.25% and emphasized that the epidemic would continue to put heavy pressure on economic activity, inflation and employment in the short term created significant risks for the economic outlook in the medium term.
- In the Euro Area, the macroeconomic data announced for the second quarter indicate that the weakness in economic activity in the region continues.
- In addition to the improvement in liquidity conditions on a global scale, the relapse of the second wave concerns in the virus epidemic supported the demand for gold during June and led the gold prices to reach their peak for about 8 years.
- In the coming period, slowdown in global growth, increased trade war, the rise of uncertainty in trade policy, experiencing the economic deterioration than expected in major economies is likely, such as the occurrence of economic stress in emerging markets, will be among the risks to be considered by Turkey and the plastics industry.

## **1.2. TURKISH ECONOMY**

In this period, the main developments that affect and are expected to affect the Turkish economy and therefore the plastics industry are.

- GDP - Gross Domestic Product, shrinking by 2.3% in the first quarter of 2019, 1.6% in the second quarter, 1% in the third quarter and 6% in the last quarter by 0.9% for the whole year; In the first quarter of 2020, it increased by 4.5% compared to the same quarter of the previous year. The increase in the Gross Domestic Product in dollar terms was 2.3%.
- While domestic economic activity slowed down significantly due to the measures taken within the scope of the corona virus epidemic in March, the authorities take various measures to limit the effects of the virus. The CBRT, which met on March 17, two days before the planned meeting date, cut the policy rate by 100 basis points. While the CBRT announced additional

---

The intellectual property rights of this report belong to PAGEV and cannot be quoted even partly, without being shown as a source.

measures to keep the credit flow towards the real sector, the BRSA took decisions to support the banking sector. The government announced the "Economic Stability Shield" package of 100 billion TL.

- During the period covering the months of February, March and April, the unemployment rate decreased by 0.9 points compared to the same period of the previous year and was realized as 13.2%.
- The virus outbreak caused a record decrease in industrial production in April. Calendar adjusted industrial production declined by 31.4% on an annual basis in this period. The fastest contraction in the manufacturing industry was in the motor vehicles sub-index with 77.6%, followed by leather products with 61% and textile products with 60%.
- According to the data announced by the CBRT, with the normalization steps, capacity utilization in the manufacturing industry increased by 3.4 points in June compared to May and became 66%.
- Manufacturing PMI, which went down to 33.4 level in April, increased above the 50-threshold level in June after the recovery in May, signaling growth in the manufacturing industry.
- In addition to the disruptions in the supply chain, the pandemic stagnation continues in some of the export markets.
- Non-food retail sales declined rapidly in April after March. Retail sales decreased by 19.3% on an annual basis, while non-food retail sales decreased by 36.7% in the same period. On the other hand, food expenditures increased rapidly with 12.5% during this period due to the quarantine application.
- House sales decreased by 44.6% on an annual basis in May.
- Normalization steps positively reflected on confidence indices also in June after May. In this period, seasonally adjusted real sector confidence index increased by 16.3 points compared to the previous month and realized as 89.8. Expectations for export orders and production volume for the next three months and evaluations regarding the general course played a role in the improvement in real sector confidence. The consumer confidence index increased by 3.1 points in June to 62.6, its highest value since April of last year.
- The current account balance had a deficit of 5.1 billion USD in April, above expectations.
- There is a net outflow of capital in direct investments item.
- According to the temporary foreign trade data published by the Ministry of Trade, it is observed that exports increased by 15.8% on an annual basis in June. In this period, imports increased by 8.2% with the effect of the dynamism in domestic production, while the foreign trade deficit narrowed by 17.3%.
- The central government budget posted a deficit of 17.3 billion TL in May. During this period, budget revenues contracted by 4.8% annually to 68.1 billion TL, while budget expenditures increased by 2.2% to 85.4 billion TL.

---

The intellectual property rights of this report belong to PAGEV and cannot be quoted even partly, without being shown as a source.

- The central government budget presents a negative outlook since March due to the measures taken by the public finance to support economic activity during the epidemic process. In the second half of the year, with the expected recovery in domestic demand, tax revenues are expected to support the budget balance, but an upward revision of the year-end budget deficit target is expected.
- While the upward trend in annual consumer inflation continued in June, the increase in CPI reached its highest level since August 2019 with 12.6%. The annual increase in D-PPI was realized as 6.2%.
- After May, when the restrictions applied as a precaution to the epidemic began to be relaxed on a global scale, the signs of recovery regarding economic activity continued in June. Developments indicating that the virus has started to spread again in many countries with the effect of the normalization steps taken cause the partial recovery in macroeconomic data to be approached with caution.
- While international organizations, including the IMF and the World Bank, made downward revisions in their estimates regarding global economic activity in June, central banks announced that they would continue their expansionary monetary policies. With the support of the global liquidity abundance in June, the markets generally displayed a positive outlook. However, in addition to the emerging epidemic-related concerns during the period, developments that raised questions regarding the course of global trade caused the demand for assets of developing countries to follow a fluctuating course.
- With the removal of the corona virus measures, a significant recovery has been observed in economic activity compared to the decrease experienced in April. Leading data regarding the month of June, when businesses opened and demand, which was delayed during the epidemic period, quickly became active with the effect of the decrease in interest rates, confirms this situation.
- On the other hand, it is estimated that the current account balance will remain under pressure for a while in an environment where there is no foreign visitor flow, but oil prices, which remained significantly below last year, will balance this pressure.

Developments show that the old risk elements will continue in the economy and the new ones will be added to these. It is therefore estimated that the uncertainty to be raised will often lead to the use of risqué escape and a cautious source, and that the question of not growing in the world economy will continue.

---

The intellectual property rights of this report belong to PAGEV and cannot be quoted even partly, without being shown as a source.

		2017	2018	2019	2020	Period
<b>GDP</b>	Billion \$	853	789	754	176	( Q1 )
<b>Growth Rate</b>	%	7.4	2.6	0.9	4.5%	( Q1 )
<b>Inflation</b>	%	11.92	20.30	11.84	12.62	June
<b>Unemployment</b>	%	9.9	12.9	13.1	12.8	April
<b>Exports</b>	Billion \$	157	168	172	75	June
<b>Imports</b>	Billion \$	234	223	203	99	June
<b>Foreign Trade Balance</b>	Billion \$	- 77	-55	-31	-24	June
<b>Exports/Imports</b>	%	67	75	85	76	June
<b>USD / TL</b>	TL	3.7916	5.31999	5.9539	6.8503	June
<b>EURO / TL</b>	TL	4.5530	6.0815	6.6724	7.7012	June

**Table 1: Turkey's Main Economic Indicators**

Sources: T. İş Bank and Akbank Economic Publications, Central Bank and TURKSTAT Statistics

## 2. PLASTICS END PRODUCTS INDUSTRY

### 2.1. COVID-19 IMPACT ON PLASTICS INDUSTRY

With the corona virus epidemic exceeding the borders of China and spreading rapidly on a global scale, a demand-driven decline has been observed in the manufacturing industry since mid-March. Outbreak effected in different ways on the subsectors of Turkish plastics industry.

Automotive companies have suspended production on a global basis and production in the automotive sector has come to a standstill. People have postponed their demands for vehicles out of concern to continue their lives and to meet their basic needs. Since the main markets of Turkish automotive industry is European countries and about 75% of the production made on this issue in Turkey are sold in the European market, production of OEMs and automotive plastics in Turkey was negatively affected by decrease in domestic and foreign demand.

The packaging industry generally produces industrial and food packaging. Although there is a decline in the industrial sector due to the slowdown in production, a significant increase is observed in the disposable packaging and film sector that appeals to the end consumer. With the spread of the epidemic, the critical role played by plastic packaging in terms of hygiene and public health has once again emerged. Accordingly, the demand for all these products has increased. Especially after the rapid increase in demand for cologne and antiseptic solution bottles, companies in the sector had difficulties in raising production.

There has been a rapid increase in the demand for plastic products in the medical sector. All companies have worked with high capacity to meet the need for masks and gloves. Although there is no clear prediction as to whether the epidemic will continue in the second half of the

The intellectual property rights of this report belong to PAGEV and cannot be quoted even partly, without being shown as a source.

year, it is estimated that the demand increase in the medical sector will not decrease in the short term.

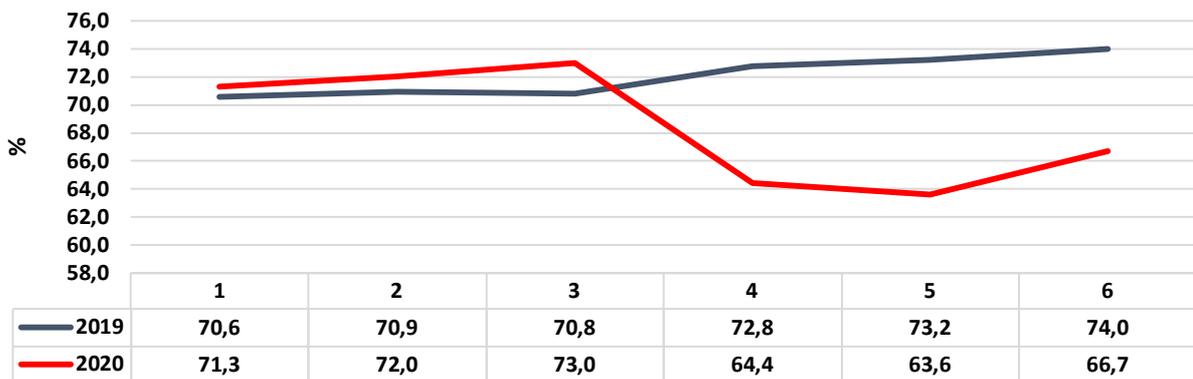
Firms operating in the durable consumer goods, agricultural plastics, carpet, and textile sectors have reduced their production due to order cancellations.

The main problems arising in the plastics industry in general It can be summarized as supply chain disruption, order cancellations and an increase in the risk of collection. It is estimated that all these problems will cause a decrease in employment in the sector.

Since the relevant measures of the corona virus outbreak started in mid-March, Turkey's manufacturing industry has had a limited impact on the virus in the first three months of 2020. The negative effects of the virus on the manufacturing industry have started to be felt especially after April.

## 2.2. CAPACITY UTILIZATION

Capacity utilization in the plastics industry was higher in the first 3 months of 2020 compared to the peers of 2019. However, it is seen that the capacity utilization in April, May and June fell well behind the same months of 2019.

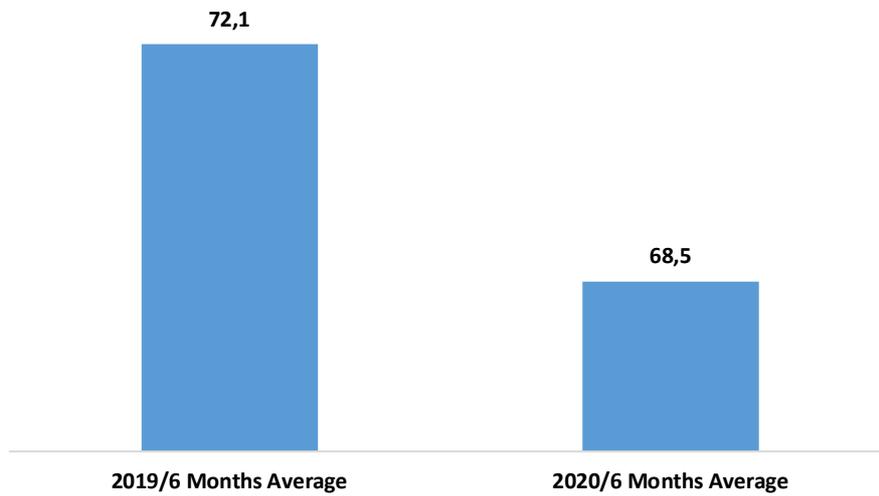


**Graphic 1 : Capacity Utilization in Plastics End Products ( 2019 & 2020 Comparison )**

Source: Turk Stat

While the average capacity utilization in the plastics industry was 72.1% in the first 6 months of 2019, it was 68.5% in the first 6 months of 2020 and declined by 3.6 points.

The intellectual property rights of this report belong to PAGEV and cannot be quoted even partly, without being shown as a source.



**Graphic 2 : Capacity Utilization in Plastics End Products (2019 & 2020 6 Months Comparison )**

Source: Turk Stat

### 2.3. PRODUCTION

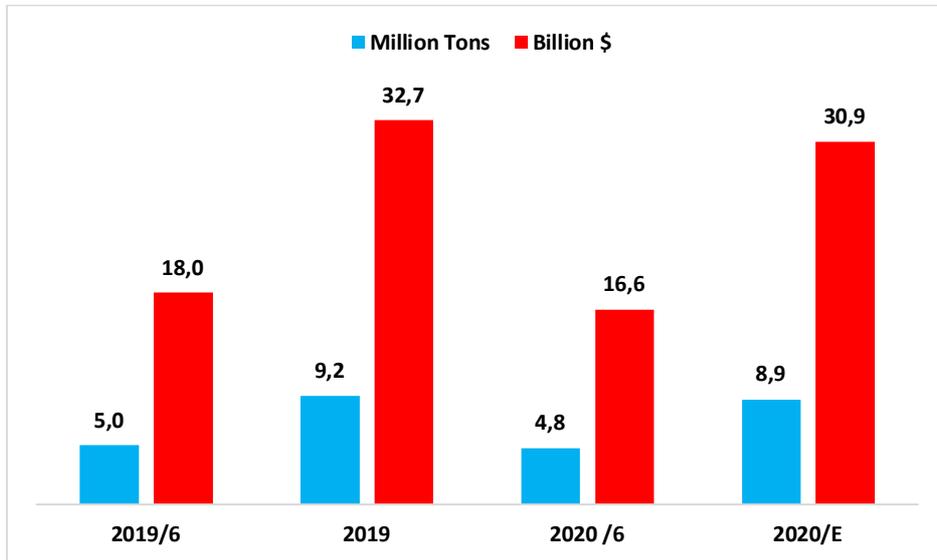
With the effect of the decline in domestic and foreign demand caused by the corona virus epidemic in March - May, the production of plastic products realized by 4.8 million tons and 16,6 billion dollars in the first half of 2020 decreasing by 4.8% on amount and 7.9% on value basis compared to the peer period of 2019,. In 2020, it is estimated that production will decrease by 3.5% on amount and 5.6% on value basis compared to 2019, and it will be 8.9 million tons and 30.9 billion dollars.

	2019/6	2019	2020 / 6	2020/T	% Change 2020/2019 ( 6 My )	% Change 2020/2019 ( E )
<b>Million Tons</b>	5,0	9,2	4,8	8,9	-4.8	-3.5
<b>Billion \$</b>	18,0	32,7	16,6	30,9	-7.9	-5.6

**Table 2: Plastics End Products Production ( 6 Months Comparison )**

Source : Turk Stat and ITC Trade Statistics

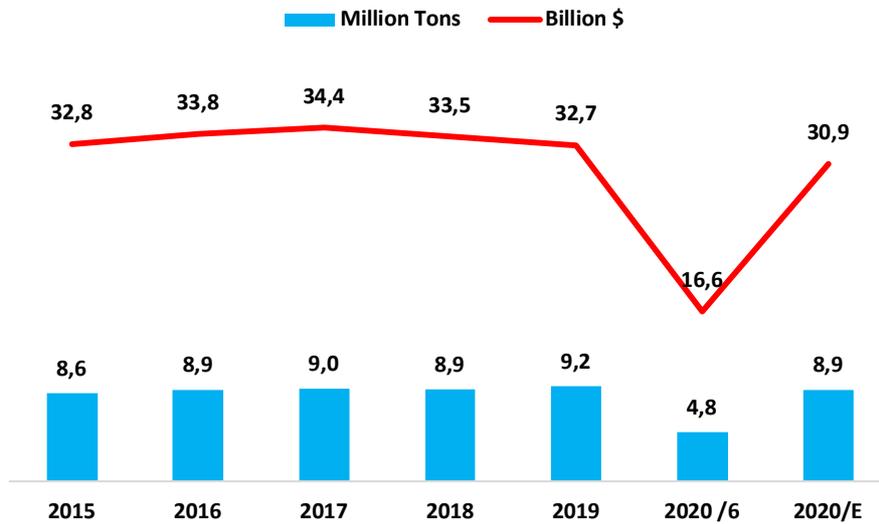
The intellectual property rights of this report belong to PAGEV and cannot be quoted even partly, without being shown as a source.



**Graphic 3: Plastics End Products Production ( 2019 & 2020 Comparison )**

Source : Turk Stat and ITC Trade statistics

By the end of 2020, it is estimated that the production of plastic products will fall behind 2016 and 2018 on quantity basis and 2015 on value basis.

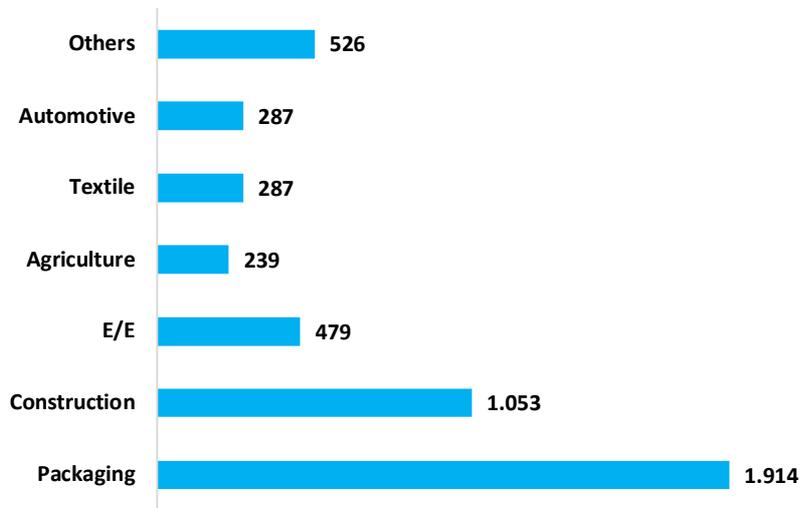


**Graphic 4: Plastics End Products Production – Development in the Last 5 Years**

Source : Turk Stat and ITC Trade Statistics

The intellectual property rights of this report belong to PAGEV and cannot be quoted even partly, without being shown as a source.

In the first half of 2020, it is seen that within the total plastic product production of 4.8 million tons, plastic packaging materials took the lead with 1,9 million tons, while plastic construction materials production followed plastic packaging materials with 1 million 53 thousand tons.

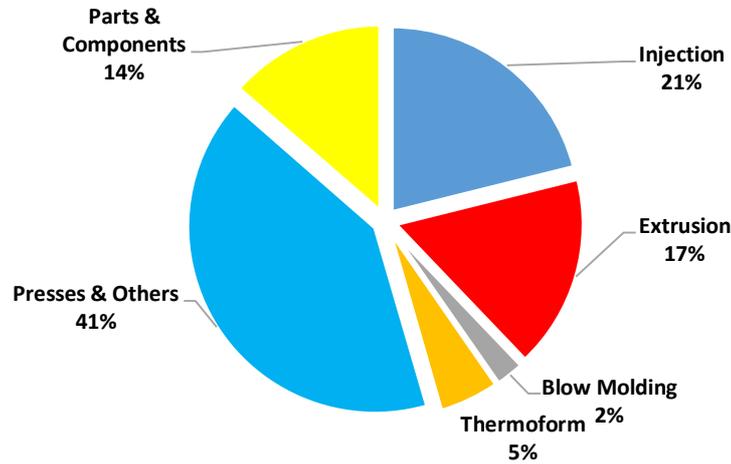


**Graphic 5: Plastics End Product Production by Subsectors – (1000 Ton) - 2020/6**

Source: TURKSTAT and ITC Trade Statistics

#### **2.4. MACHINERY INVESTMENTS**

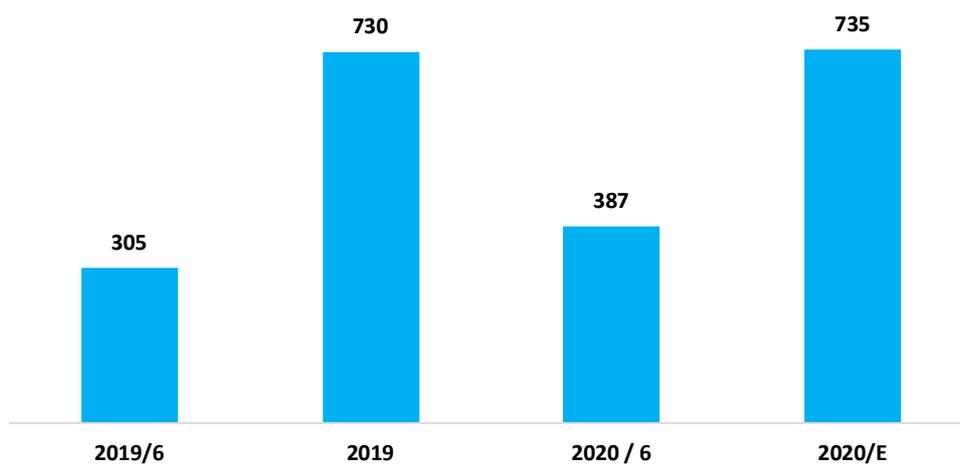
In the last 6 years covering 2015-2019, the plastics industry has invested an average of 840 million dollars in machinery and equipment annually, 41% of the total investment is in presses and other machines, 21% injection, 17% extrusion, 5% thermoforming, 2% was blown molding and 14% was parts and components.



**Graphic 6: Breakdown of Machinery Investments of Turkish plastics Industry Between 2014 – 2019**

Source: Turk Stat & ITC Trade Statistics

It is seen that the domestic market sales of plastic processing machinery, which decreased by 2% annually between 2015 and 2019, increased by 27% in the first half of 2020 compared to the peer period of 2019 and reached to 387 million dollars. It is estimated that the domestic sales of plastic processing machinery will increase by 1% compared to 2019 and reach to 735 million dollars by the end of 2020. In an environment where production is declining, a small increase in investments will be met by imported machines.

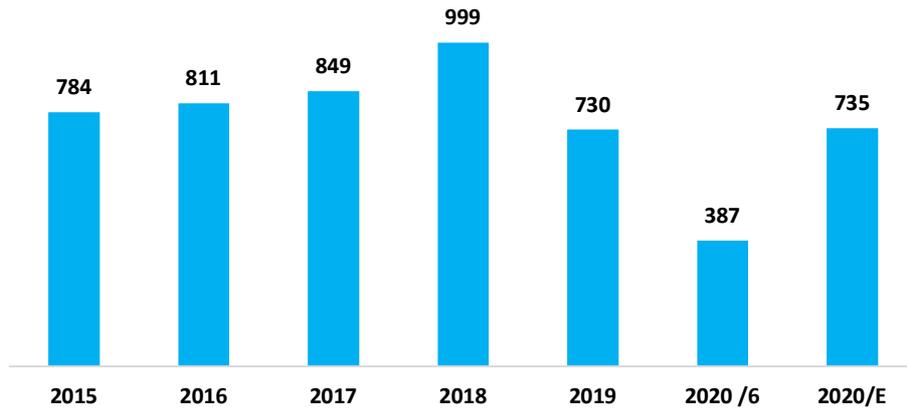


**Graphic 7: Machinery Investments of Turkish plastics Industry (Million \$)**

Source: Turk Stat & ITC Trade Statistics

The intellectual property rights of this report belong to PAGEV and cannot be quoted even partly, without being shown as a source.

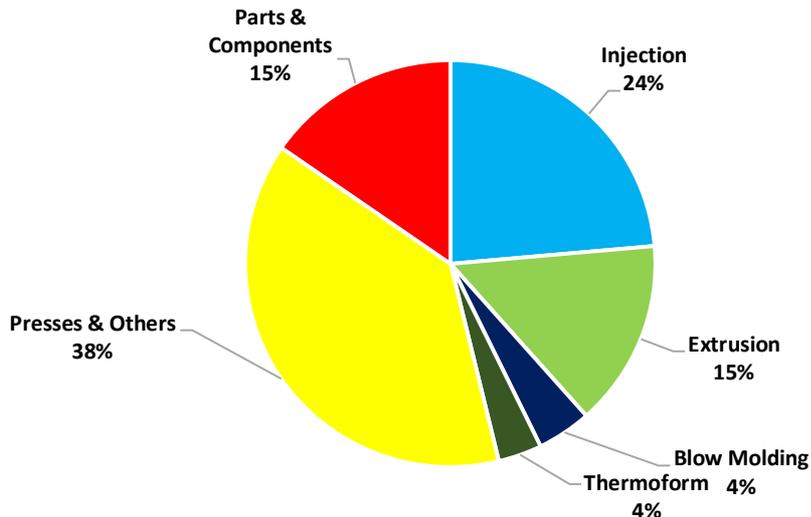
However, although the machinery and equipment investments of the sector will increase in 2020 compared to 2019, it is expected to remain behind 2015.



**Graphic 8: Machinery Investments of Turkish plastics Industry (Million \$)**

Source: Turk Stat & ITC Trade Statistics

In the first half of 2020, among the total machinery investments of the plastics industry, injection machines have a share of 24%, extrusion machines 15%, blow molding machines and thermoforming machines 4%, presses and other machines 38% and parts and components 15%.



**Graphic 9: Machinery Investments of Turkish plastics Industry (2020/6)**

Source: Turk Stat & ITC Trade Statistics

The intellectual property rights of this report belong to PAGEV and cannot be quoted even partly, without being shown as a source.

## 2.5. FOREIGN TRADE

### 2.5.1. IMPORTS

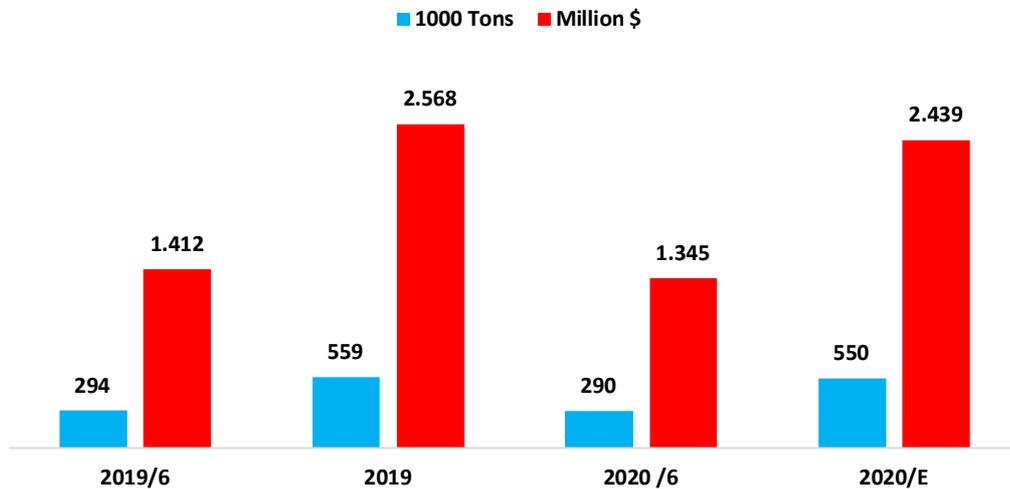
With the effect of the decline in domestic demand caused by the corona virus epidemic, the imports of plastic products decreased by 1.4% on amount and 4.8% on value basis in the first half of 2020 compared to the same period of 2019 and decreased to 290 thousand tons and 1 billion 345 million dollars.

In 2020, imports are estimated to be 550 thousand tons and 2.44 billion dollars, decreasing by 1.6% on amount and 5% on value basis compared to 2019.

	2019/6	2019	2020 / 6	2020/T	% Change 2020/2019 ( 6 M )	% Change 2020/2019 ( E )
<b>1000 Tons</b>	294	559	290	550	-1.4	-1.6
<b>Million \$</b>	1,412	2,568	1,345	2,439	-4.8	-5.0

**Table 3: Plastics End Product Imports ( 6 Months Comparison )**

Source: Turk Stat & ITC Trade Statistics



**Graphic 10: Plastics End Product Imports ( 6 Months Comparison )**

Source: Turk Stat & ITC Trade Statistics

In the first half of 2020, the highest import on amount and value basis was in the product group with the HS code of 3920 (other plastic plates, leaves, pellicles, and slides). The import

The intellectual property rights of this report belong to PAGEV and cannot be quoted even partly, without being shown as a source.

of the products included in this HS Code has constituted 43% on amount basis and 28% on value basis of total plastic product import.

HS CODE	PLASTIC PRODUCTS DEFINITIONS	1000 Ton	% Share Ton	Million \$	% Share \$
3916	Monofilament, bar, profiles from plastic-cross section over 1mm	5	2	24	2
3917	Tubes, pipes, hoses from plastic; gasket, elbow, union etc.	18	6	131	10
3918	Floor coverings from plastic – incl. wall and ceiling coverings	11	4	31	2
3919	adhesive plate, sheet, strip, slide, etc. from plastic; flat	29	10	150	11
3920	Other plate, sheet, pellicles, and slides from plastic	125	43	378	28
3921	Other plates, sheets, pellicles, foils, and slides from plastic	26	9	116	9
3922	Bathtub, shower, sink, bidet, water-closet pan, and hardware from plastic	1	0	8	1
3923	Plastic products for moving furniture, tap, cap, capsule	38	13	176	13
3924	Table, kitchen and other household furniture, toiletry form plastic	3	1	22	2
3925	Construction materials from plastic	2	1	12	1
3926	Other goods from plastic	30	10	298	22
	<b>TOTAL</b>	290	100	1.345	100

**Table 4: Plastics End Products Imports by HS Codes (2020/6)**

Source: Turk Stat & ITC Trade Statistics

### 2.5.2. EXPORTS

Exports of plastic products increased by 5.2% on amount and decreased by 7.8% on value basis in the first half of 2020 compared to the same period of 2019 and amounted to 1 million 82 thousand tons and 2 billion 465 million dollars.

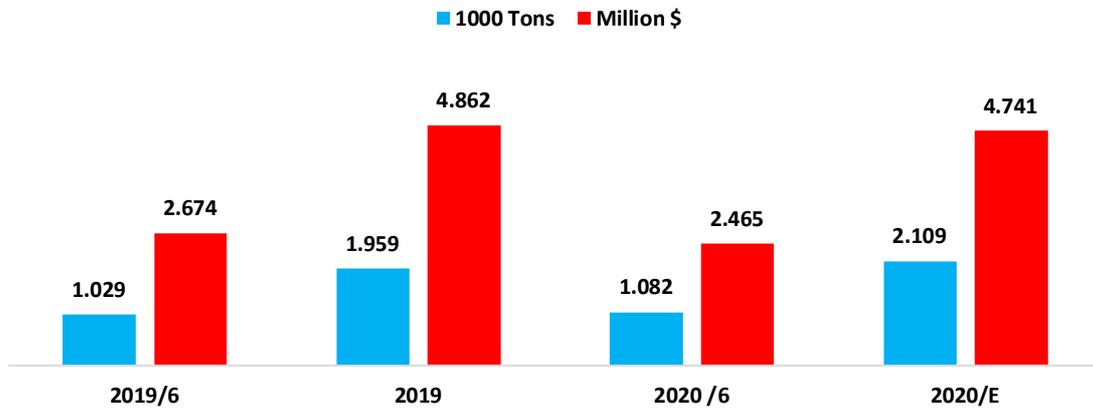
In 2020, it is estimated that exports will increase by 7.7% on amount but decrease by 2.5% on value basis compared to 2019 and reach 2 million 109 thousand tons and 4 billion 741 thousand dollars.

	2019/6	2019	2020 / 6	2020/T	% Change 2020/2019 ( 6 M )	% Change 2020/2019 ( E )
<b>1000 Ton</b>	1,029	1,959	1,082	2,109	5.2	7.7
<b>Million \$</b>	2,674	4,862	2,465	4,741	-7.8	-2.5

**Table 5: Plastics End Products Exports ( 6 Months Comparison )**

Source: Turk Stat & ITC Trade Statistics

The intellectual property rights of this report belong to PAGEV and cannot be quoted even partly, without being shown as a source.



**Graphic 11: Plastics End Products Exports ( 6 Months Comparison )**

Source: Turk Stat & ITC Trade Statistics

In the first half of 2020, the largest export on amount and value basis was in the products group of 3920 (other plastic plates, sheets, and slides) and 3923 (plastic products for goods transport packaging, stoppers, caps, capsules). Exports of products in these HS code constituted 47% of total plastic product exports on amount and value basis.

HS CODE	PLASTIC PRODUCTS DEFINITIONS	1000 Ton	% Share Ton	Million \$	% Share \$
3916	Monofilament, bar, profiles from plastic-cross section over 1mm	89	8	141	6
3917	Tubes, pipes, hoses from plastic; gasket, elbow, union etc.	135	13	272	11
3918	Floor coverings from plastic – incl. wall and ceiling coverings	12	1	19	1
3919	Adhesive plate, sheet, strip, slide, etc. from plastic; flat	10	1	46	2
3920	Other plate, sheet, pellicles, and slides from plastic	288	27	667	27
3921	Other plates, sheets, pellicles, foils, and slides from plastic	77	7	199	8
3922	Bathtub, shower, sink, bidet, water-closet pan, and hardware from plastic	13	1	49	2
3923	Plastic products for moving furniture, tap, cap, capsule	219	20	499	20
3924	Table, kitchen and other household furniture, toiletry form plastic	80	7	204	8
3925	Construction materials from plastic	48	4	112	5
3926	Other goods from plastic	111	10	257	10
	<b>TOTAL</b>	<b>1.082</b>	<b>100</b>	<b>2.465</b>	<b>100</b>

**Table 6: Plastics End Product Exports by HS Codes (2020/6)**

Source: TURKSTAT and ITC Trade Statistics

According to IMMIB (Istanbul Mineral and Metals Exporters' Association) statistics, in the first half of 2020, exports in plastics and its products decreased by 5% on value basis compared to the same

The intellectual property rights of this report belong to PAGEV and cannot be quoted even partly, without being shown as a source.

period of 2019, but its share in total chemical industry exports increased from 30% to 33%, keeping its position as the first exporter sector.

PRODUCTS GROUP	Million \$			% Share	
	2019 / 6	2020 / 6	% Change	2019 / 6	2020 / 6
PLASTICS	3,014.2	2.854,9	-5	30.0	33.0
MINERAL FUELS, MINERAL OILS AND PRODUCTS	2,992.3	1.741,3	-42	29.8	20.2
INORGANIC CHEMICALS	883,9	771,9	-13	8.8	8.9
RUBBERS	629,9	510,5	-19	6.3	5.9
VOLATILE OILS, COSMETICS AND SOAP	552,3	583,4	6	5.5	6.8
PHARMACY PRODUCTS	481,0	546,7	14	4.8	6.3
PAINT, VARNISH, INK AND PREPARATIONS	395,6	368,3	-7	3.9	4.3
MISCELLANEOUS CHEMICALS	334,3	528,4	58	3.3	6.1
ORGANIC CHEMICALS	293,9	210,8	-28	2.9	2.4
WASHING PREPARATIONS	220,9	278,7	26	2.2	3.2
FERTILIZERS	138,6	127,8	-8	1.4	1.5
ADHESIVES, ADHESIVES, ENZYMES	93,6	106,9	14	0.9	1.2
PRODUCTS USED IN PHOTOGRAPHY AND CINEMATICS	6,2	4,4	-29	0.1	0.1
EXPLOSIVE SUBSTANCES AND DERIVATIVES	4,9	5,3	9	0.0	0.1
GLYCERINE, HERBAL PRODUCTS, DEGRA, OILY SUBSTANCES	0,5	0,8	69	0.0	0.0
PROCESSED AMIANT AND MIXTURES, ITS PRODUCTS	0,1	0,8	907	0.0	0.0
<b>TOTAL</b>	<b>10,042.1</b>	<b>8,641.1</b>	<b>-14</b>	<b>100</b>	<b>100</b>

**Table 7: Chemical Industry Exports by Subsectors**

Source: Turk Stat & ITC Trade Statistics

Product sub-groups with the highest increase in exports in the first six months of 2020 compared to the peer period of 2019; 3926 (Other articles of plastic) 3918 (Plastic floor coverings-wall and ceiling coverings) and 3920 (Other plates, leaves, pellets and slides of plastic). In these product groups, the increase in exports varies between 27% and 119% on amount and between 18% and 42% on value basis.

The intellectual property rights of this report belong to PAGEV and cannot be quoted even partly, without being shown as a source.

HC Code	Products	Amount Base	Value Base
3916	Monofilament, bar, profiles from plastic-cross section over 1mm	4.2	1.8
3917	Tubes, pipes, hoses from plastic; gasket, elbow, union etc.	16.3	-4.1
3918	Floor coverings from plastic – incl. wall and ceiling coverings	60.7	42.0
3919	Adhesive plate, sheet, strip, slide, etc. from plastic; flat	-3.4	-6.6
3920	Other plate, sheet, pellicles, and slides from plastic	27.4	21.7
3921	Other plates, sheets, pellicles, foils, and slides from plastic	-1.3	-4.4
3922	Bathtub, shower, sink, bidet, water-closet pan, and hardware from plastic	-10.1	-10.4
3923	Plastic products for moving furniture, tap, cap, capsule	3.5	-1.8
3924	Table, kitchen and other household furniture, toiletry form plastic	-4.8	-8.5
3925	Construction materials from plastic	-2.1	-6.9
3926	Other goods from plastic	119.2	17.5
	<b>TOTAL</b>	16.0	4.2

**Table 8: Increase in Exports by HS Codes ( 2020/2019 6 Months Comparison )**

Source: TURKSTAT and ITC Trade Statistics

### 2.5.3. IMPORTS AND EXPORTS BY COUNTRIES

Turkey is importing plastics end products from over 100 countries while exporting to more than 200 countries each year.

In the first half of 2020, imports from 10 countries constituted 72% of total imports on amount and 74% on value basis. In this period, Germany had the highest share in total imports with 16% on amount and 19% on a value basis, while China was the second largest import market with a 25% share on amount and 18% on value basis. Apart from Germany and China, it is seen that Italy, France and South Korea are the countries from which Turkey imports most.

Exports to 10 countries in the said period constituted 51% of total exports on amount and 48% on value basis. During this period, Iraq, Germany, England, Israel, and France constituted Turkey's largest export markets for plastic end products.

Imports					Exports				
Countries	1000 Ton	Million \$	Ton- %	\$ - %	Countries	1000 Ton	Million \$	Ton- %	\$ - %
Germany	45	250	16	19	Iraq	123	202	12	8
China	74	237	25	18	Germany	57	189	6	8
Italy	29	151	10	11	UK	68	162	7	7
France	12	79	4	6	Israel	72	135	7	6
G. Kore	14	74	5	5	France	30	92	3	4
USA	6	67	2	5	Italy	38	88	4	4

The intellectual property rights of this report belong to PAGEV and cannot be quoted even partly, without being shown as a source.

UK	6	41	2	3	USA	34	88	3	4
Belgium	10	37	3	3	Romain	36	86	4	4
Poland	6	33	2	2	Spain	30	69	3	3
Spain	6	32	2	2	Libya	34	61	3	3
<b>10 Total</b>	<b>208</b>	<b>1,000</b>	<b>72</b>	<b>74</b>	<b>10 Total</b>	<b>520</b>	<b>1,172</b>	<b>51</b>	<b>48</b>
<b>Others</b>	<b>81</b>	<b>345</b>	<b>28</b>	<b>26</b>	<b>Others</b>	<b>562</b>	<b>1,293</b>	<b>49</b>	<b>52</b>
<b>TOTAL</b>	<b>290</b>	<b>1,345</b>	<b>100</b>	<b>100</b>	<b>TOTAL</b>	<b>1,082</b>	<b>2,465</b>	<b>100</b>	<b>100</b>

**Table 9: Plastic End Products Imports and Exports by Countries (2020/6)**

Source: TURKSTAT and ITC Trade Statistics

#### 2.5.4. IMPORT AND EXPORT PRICES

Unit import prices for plastic end products are always above the unit export prices in Turkey. In the first half of 2020, the average import price of plastic products realized as \$ 4.64 / Kg and the average export price was \$ 2.28 / Kg, Compared to the same period of 2019, the average import price declined by 3.5% and the average export price 12.4%. This situation caused a further decrease in the added value created by exports of plastics end products.

	2019/6	2019	2020 / 6	% Change 2020/2019 ( 6 M )
<b>Import Price</b>	4,81	4,59	4,64	-3.5
<b>Export Price</b>	2,60	2,48	2,28	-12.4

**Table 10: Average Unit Foreign Trade Prices for Plastics End Products ( \$/Kg)**

Source: Turk Stat & ITC Trade Statistics



**Graphic 12: Average Unit Foreign Trade Prices for Plastics End Products ( \$/Kg)**

Source: Turk Stat & ITC Trade Statistics

The intellectual property rights of this report belong to PAGEV and cannot be quoted even partly, without being shown as a source.

### 2.5.5. VALUE ADDED CREATED BY EXPORTS

In the first 6 months of 2020, the highest added was created in the products included in the HS code of 3919 (plastic adhesive plate, sheet, strip, slide, etc.) and 3922 (Bathtub, shower, sink, bidet, water-closet pan and hardware from plastic). The ratio of the created value added in these group to the export price was 77% and 71% respectively.

However, Turkey's share in the total exports of plastic end products for these groups are insignificant as 2%.

On the other hand, the added value created in the 3923 group is about 52%. when considering also that these products have a high share in the total plastic products imports of Turkey. Turkey imports high added value products while exports low ones. It is inevitable for Turkey to concentrate on exports of high products.

HS Code	Value Added (\$/Kg)		Value Added/Export Price(%)		Share in Total Exports (%)	Share in Total Imports (%)
	2019	2020/6	2019	2020/6		
3916	0,3	0,5	19	31	7	2
3917	1,0	0,9	43	45	12	9
3918	0,4	0,5	24	31	1	3
3919	3,6	3,6	73	77	2	11
3920	1,1	1,2	46	52	22	30
3921	1,3	1,5	50	57	9	9
3922	2,4	2,6	65	71	2	1
3923	1,1	1,2	45	52	21	11
3924	1,4	1,5	51	57	9	1
3925	1,1	1,3	46	53	5	1
3926	3,3	1,2	72	52	9	23
<b>Total</b>	<b>1,2</b>	<b>1,2</b>	<b>48</b>	<b>52</b>	<b>100</b>	<b>100</b>

**Table 11: Value Added Created by Plastics End Products by HS Codes**

Source: Turk Stat & ITC Trade Statistics

The intellectual property rights of this report belong to PAGEV and cannot be quoted even partly, without being shown as a source.

### 2.5.6. FOREIGN TRADE SURPLUS

Turkey always gives foreign trade surplus in plastic end products foreign trade.

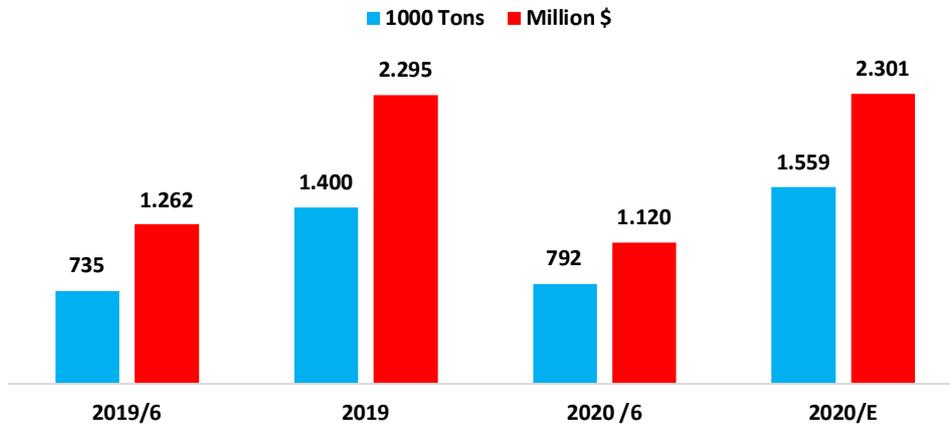
In the plastic end products sector, foreign trade surplus of 792 thousand tons and 1 billion 120 million dollars was given in the first half of 2020. Foreign trade surplus increased by 7.8% on amount and decreased by 11.3% on value basis compared to the same period of 2019.

In 2020, the foreign trade surplus is expected to increase by 11.4% on amount but decrease by 0.3% on value basis, compared to 2019.

	2019/6	2019	2020 / 6	2020/T	% Change 2020/2019 (6 M)	% Change 2020/2019 (E)
<b>1000 Tons</b>	735	1,400	792	1,559	7.8	11.4
<b>Million \$</b>	1,262	2,295	1,120	2,301	-11.3	0.3

**Table 12: Foreign Trade Surplus in Plastics End Products Industry (6 Months Comparison )**

Source: Turk Stat & ITC Trade Statistics



**Graphic 13: Foreign Trade Surplus of Plastics End Products Industry**

Source: Turk Stat & ITC Trade Statistics

### 2.6. DOMESTIC CONSUMPTION

The domestic demand for plastic products decreased by 6.9% on amount and 7.6% on value basis in the first half of 2020 compared to the same period of the previous year and realized as 4 million tons and 15.4 billion dollars.

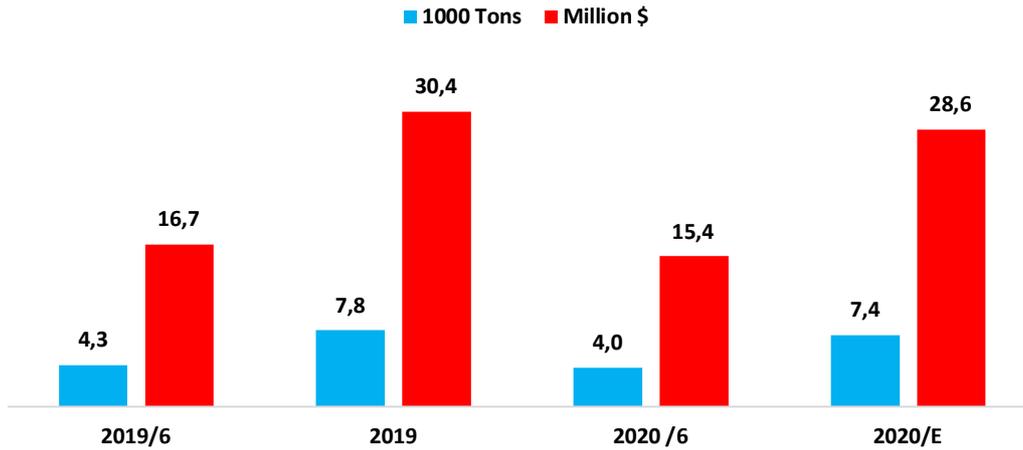
The intellectual property rights of this report belong to PAGEV and cannot be quoted even partly, without being shown as a source.

As a result of the decline in domestic demand due to the negative impact of the corona virus epidemic on many sectors, especially construction, automotive and tourism, domestic consumption is estimated to decrease by 6.2% on amount and 6% on value basis in 2020 compare to 2019 and realize as 7.4 million tons and 28,6 billion dollars.

	2019/6	2019	2020 / 6	2020/T	% Change 2020/2019 ( 6 M )	% Change 2020/2019 ( E )
<b>Million Tons</b>	4,3	7,8	4,0	7,4	-6,9	-6,2
<b>Billion \$</b>	16,7	30,4	15,4	28,6	-7,6	-6,0

**Table 13: Plastics End Products Domestic Consumption ( 6 Months Comparison )**

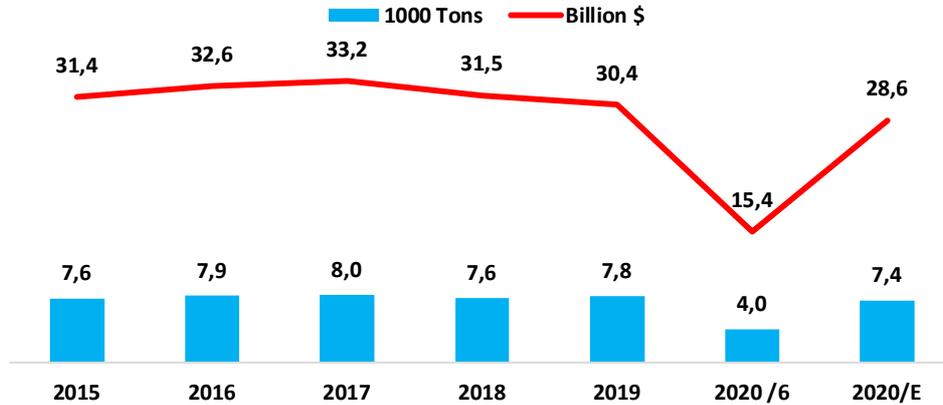
Source: Turk Stat & ITC Trade Statistics



**Graphic 14: : Plastics End Products Domestic Consumption ( 6 Months Comparison )**

Source: Turk Stat & ITC Trade Statistics

In 2020, it is estimated that domestic consumption of plastic products will fall below 2015 levels on a quantity basis and on a value basis in 2018.



**Graphic 15: : Plastics End Products Domestic Consumption ( Last 5 Years Comparison )**

Source: Turk Stat & ITC Trade Statistics

Approximately 2 million tons of the total plastic end products domestic consumption, realized in the first half of 2020, was exported indirectly as semi-finished and finished products through main exporter sectors such as automotive, packaging, construction, and electronics. The remaining 2 million tons was consumed directly by the consumer.

## 2.7. SUPPLY AND DEMAND AND 2020 EXPECTATIONS

In the plastic end products sector, **on amount basis**, the share of exports in production increased to 23% in the first half of 2020, while the share of imports in domestic consumption remained at the level of 7%.

In the remaining period of 2020, in line with the possible negative effects of the corona virus on the macro economy and the expectations in the plastic consuming sectors, the production in the plastic end products sector will decrease by 3.5% on amount basis, 1.6% on the domestic consumption compared to 2019, but the exports are expected to increase by 7.7% . It is estimated that a foreign trade surplus of 1 million 559 thousand tons will be given in the plastic end products sector in 2020, 24% of production will be exported, and 7% of domestic consumption will be met by imports.

The intellectual property rights of this report belong to PAGEV and cannot be quoted even partly, without being shown as a source.

	2019/6	2019	2020 / 6	2020/T	% Change 2020/2019 ( 6 M )	% Change 2020/2019 ( E )
Production	5,025	9,243	4,786	8,919	-4.8	-3.5
Imports	294	559	290	550	-1.4	-1.6
Exports	1,029	1,959	1,082	2,109	5.2	7.7
Domestic Consumption	4,290	7,843	3,994	7,360	-6.9	-6.2
Foreign Trade Surplus/Deficit	735	1,400	792	1,559	7.8	11.4
Exports/Production ( % )	20	21	23	24		
Imports/Domestic Consumption ( % )	7	7	7	7		

**Table 14: Supply and Demand in Plastics End Products Industry (1000 Ton)**

Source: Turk Stat & ITC Trade Statistics

**Based on value** in the first half of 2020; The share of exports in production has increased to 15%, and the share of imports in domestic consumption has increased to 9%.

In the remaining period of 2020, in parallel with the negative effects of the corona virus on the macro economy and the negative expectations in the plastic consuming sectors, it is estimated that production will decrease by 5.6%, imports by 5%, exports by 2.5% and domestic consumption by 6% compared to 2019. According to this assumption, it is estimated that a foreign trade surplus of 2.3 billion dollars will be given in the plastic end products sector in 2020, 15% of the production will be exported and 9% of the domestic consumption will be imported.

	2019/6	2019	2020 / 6	2020/T	% Change 2020/2019 ( 6 M )	% Change 2020/2019 ( E )
Production	17,974	32,680	16,559	30,860	-7.9	-5.6
Imports	1,412	2,568	1,345	2,439	-4.8	-5.0
Exports	2,674	4,862	2,465	4,741	-7.8	-2.5
Domestic Consumption	16,712	30,386	15,440	28,558	-7.6	-6.0
Foreign Trade Surplus/Deficit	1,262	2,295	1,120	2,301	-11.3	0.3
Exports/Production ( % )	14	15	15	15		
Imports/Domestic Consumption ( % )	9	8	9	9		

**Table 15: Supply and Demand in Plastics End Products Industry ( Million \$ )**

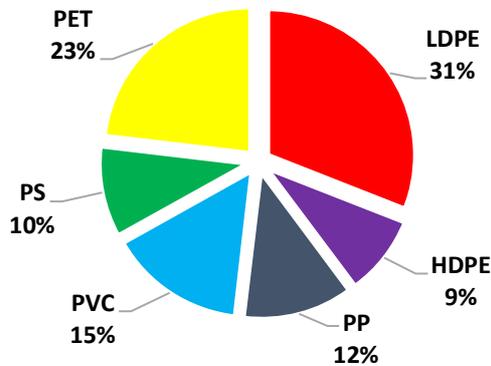
Source: Turk Stat and ITC Trade Statistics

The intellectual property rights of this report belong to PAGEV and cannot be quoted even partly, without being shown as a source.

### 3. PLASTICS RAW MATERIALS INDUSTRY

#### 3.1. PRODUCTION

Total plastic raw material production is estimated to be around 494 thousand tons in the first half of 2020. Of the total plastic raw material produced in said period in Turkey, 31% LDPE, HDPE 9%, 15% PVC, 12% PP, 10% PS, constituting 23% PET.



**Graphic 16: Plastics Raw Materials Production (2020/6)**

Source : PETKİM and Other Producers

#### 3.2. FOREIGN TRADE

##### 3.2.1. IMPORTS

Plastic raw material imports decreased by 4.2% on amount and 8.9% on value basis in the first half of 2020 compared to the same period of the previous year and amounted to 3.9 million tons and 4.3 billion dollars.

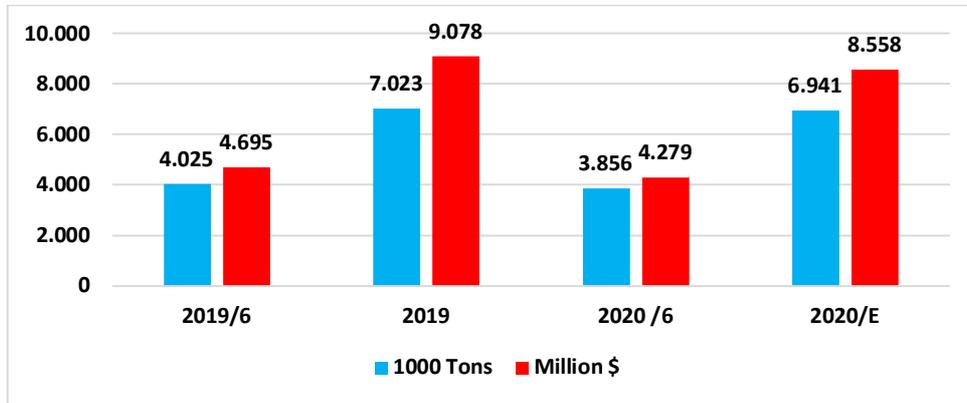
Imports of plastic raw materials are estimated to be 6.9 million tons and 8.8 billion dollars in 2020, decreasing by 1.2% on amount and 5.7% on value basis compared to 2019.

	2019/6	2019	2020 / 6	2020/T	% Change 2020/2019 ( 6 M )	% Change 2020/2019 ( E )
<b>1000 Tons</b>	4,025	7,023	3,856	6,941	-4.2	-1.2
<b>Million \$</b>	4,695	9,078	4,279	8,558	-8.9	-5.7

**Table 16 : Plastics Raw Materials Imports ( 6 Months Comparison )**

Source: Turk Stat & ITC Trade Statistics

The intellectual property rights of this report belong to PAGEV and cannot be quoted even partly, without being shown as a source.



**Graphic 17: Plastics Raw Materials Imports**

Source: Turk Stat & ITC Trade Statistics

In the first half of 2020, the highest amount of imports on amount and value basis were realized in polyethylene and polypropylene. The imports of these two raw materials received a share of 57% on quantity basis and 53% on value basis among the total plastic raw material imports.

HS Code	CN Description	1000 TON	TON- %	Million \$	\$ - %
3901	Ethylene polymers (initial forms)	1,019	26	990	23
3902	Propylene and polymers of other olefins (initial forms)	1,195	31	1,276	30
3903	Styrene polymers (initial forms)	172	4	231	5
3904	Other olefin polymers with vinyl chloride/homogenous	371	10	346	8
3905	Vinyl acetate/polymers of other vinyl esters (initial forms)	23	1	53	1
3906	Acrylic polymers (initial forms)	129	3	199	5
3907	Polyacetals, other polyether's, epoxide-alkyd resins (initial forms)	372	10	571	13
3908	Polyamides (initial forms)	47	1	119	3
3909	Amino resins, phenolic resins, polyurethanes (initial forms)	115	3	199	5
3910	Silicones (initial forms)	21	1	75	2
3911	Petroleum resins, coumarone, indene/coumarone-indene resin, polytrees	23	1	57	1
3912	Cellulose and chemical derivatives (initial form)	21	1	79	2
3913	Natural polymers, modified natural polymers, derivatives (initial forms)	2	0	14	0
3914	Polymer based ion exchangers (initial form)	3	0	8	0
3915	Wastes, residuals, and scraps from plastic	343	9	64	1
	<b>Total</b>	<b>3,856</b>	<b>100</b>	<b>4,279</b>	<b>100</b>

**Table 17: Plastics Raw Materials Imports by HS Codes (2020/6)**

Source: Turk Stat & ITC Trade Statistics

The intellectual property rights of this report belong to PAGEV and cannot be quoted even partly, without being shown as a source.

### 3.2.2. EXPORTS

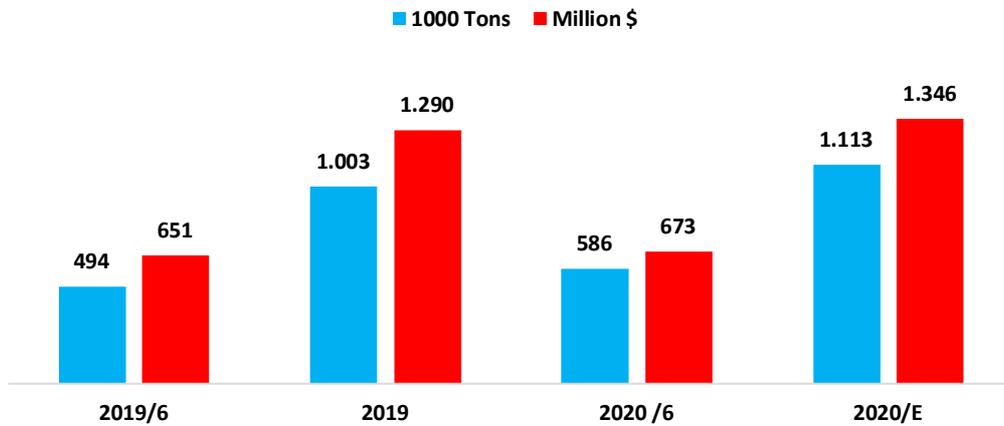
Plastic raw material exports increased by 18.6% on amount and 3.3% on value basis in the first half of 2020, compared to the same period of the previous year and amounted to 586 thousand tons and 673 million dollars.

In 2020, plastic raw material exports are estimated to be 1 million 113 thousand tons and 1.35 billion dollars, increasing by 10.9% on amount and 4.3% on value basis compared to 2019.

	2019/6	2019	2020 / 6	2020/T	% Change 2020/2019 ( 6 M )	% Change 2020/2019 ( E )
<b>1000 Tons</b>	494	1,003	586	1,113	18.6	10.9
<b>Million \$</b>	651	1,290	673	1,346	3.3	4.3

**Table 18: Plastics Raw Materials Exports ( 6 Months Comparison )**

Source: Turk Stat & ITC Trade Statistics



**Graphic 18: Plastics Raw Materials Exports**

Source: Turk Stat & ITC Trade Statistics

In the first half of 2020, the largest export in terms of amount and value in plastic raw material exports was realized in polyacetals in 3907 HS Code and acrylic polymers in 3906. The share of plastic raw materials included in these HS codes among total exports was 54% on amount and 56% on value basis.

The intellectual property rights of this report belong to PAGEV and cannot be quoted even partly, without being shown as a source.

HS Code	Description	1000 Ton	Ton- %	Million \$	\$ - %
3901	Ethylene polymers (initial forms)	38	6	35	5
3902	Propylene and polymers of other olefins (initial forms)	16	3	16	2
3903	Styrene polymers (initial forms)	58	10	56	8
3904	Other olefin polymers with vinyl chloride/homogenous	14	2	14	2
3905	Vinyl acetate/polymers of other vinyl esters (initial forms)	21	4	24	4
3906	Acrylic polymers (initial forms)	110	19	112	17
3907	Polyacetals, other polyether's, epoxide-alkyd resins (initial forms)	202	35	262	39
3908	Polyamides (initial forms)	14	2	33	5
3909	Amino resins, phenolic resins, polyurethanes (initial forms)	78	13	71	11
3910	Silicones (initial forms)	3	0	10	1
3911	Petroleum resins, coumarone, indene/coumarone-indene resin, polytrees	1	0	3	0
3912	Cellulose and chemical derivatives (initial form)	23	4	29	4
3913	Natural polymers, modified natural polymers, derivatives (initial forms)	0	0	1	0
3914	Polymer based ion exchangers (initial form)	0	0	0	0
3915	Wastes, residuals, and scraps from plastic	8	1	6	1
	<b>Total</b>	<b>586</b>	<b>100</b>	<b>673</b>	<b>100</b>

**Table 19: Plastics Raw Materials Exports by HS Codes (2020/6)**

Source: Turk Stat & ITC Trade Statistics

### 3.2.3. EXPORTS AND IMPORTS BY COUNTRIES

Turkey, while importing raw plastic from nearly 100 countries, are also exporting to over 100 countries.

In the first half of 2020, approximately 63% of total plastic raw material imports on amount and 68% on value basis were realized from 10 countries. In this period, Saudi Arabia, S. Korea and Germany took the first 3 places in total plastic raw material imports, and the share of these 3 countries in total plastic raw material imports was 32% on amount basis and 35% on value basis.

In the first half of 2020, 59% of total plastic raw material exports on amount and 55% on value basis destined to 10 countries. In this period, Romania, Italy, and Germany took the first 3 places in total plastic raw material exports, and the share of these 3 countries in total plastic raw material exports was 25% on amount and 21% on value basis.

The intellectual property rights of this report belong to PAGEV and cannot be quoted even partly, without being shown as a source.

Imports					Exports				
Countries	1000 Ton	Million \$	Ton- %	\$ - %	Countries	1000 Ton	Million \$	Ton- %	\$ - %
S.Arabia	592	548	15	13	Romain	79	55	12	8
S.Korea	362	464	9	11	Italy	47	47	7	7
Germany	310	462	8	11	Germany	36	46	6	6
Belgium	244	293	6	7	Egypt	42	40	6	6
USA	241	255	6	6	Iran	18	37	3	5
Netherland	157	184	4	4	Russian Fed.	21	34	3	5
Spain	149	180	4	4	Iraq	29	34	4	5
China	110	180	3	4	Bulgaria	30	27	5	4
Italy	110	173	3	4	Algeria	21	27	3	4
France	137	172	4	4	Israel	25	26	4	4
<b>10 Total</b>	<b>2,412</b>	<b>2,913</b>	<b>63</b>	<b>68</b>	<b>10 Total</b>	<b>348</b>	<b>372</b>	<b>59</b>	<b>55</b>
<b>Others</b>	<b>1,444</b>	<b>1,366</b>	<b>37</b>	<b>32</b>	<b>Others</b>	<b>282</b>	<b>325</b>	<b>41</b>	<b>45</b>
<b>Total</b>	<b>3,856</b>	<b>4,279</b>	<b>100</b>	<b>100</b>	<b>Total</b>	<b>586</b>	<b>673</b>	<b>100</b>	<b>100</b>

**Table 20: Plastics Raw Materials Imports and Exports by Countries (2020/6)**

Source: Turk Stat & ITC Trade Statistics

#### 3.2.4. IMPORT AND EXPORT PRICES

In the first half of 2020, the average unit import price of plastic raw materials realized as 1.11 \$ / Kg and the export price 1.15 \$ /Kg. The import price decreased by 4.1% and the export price by 12.9%. compared to the same period of 2019.

	2019/6	2019	2020 / 6	% Change 2020/2019 ( 6 M )
<b>Import Price</b>	1,16	1,29	1,11	-4.1
<b>Export Price</b>	1,32	1,29	1,15	-12.9

**Table 21: Average Foreign Trade Prices of Plastics Raw Materials (\$/Kg)**

Source: Turk Stat & ITC Trade Statistics

The intellectual property rights of this report belong to PAGEV and cannot be quoted even partly, without being shown as a source.



**Graphic 19: Average Foreign Trade Prices of Plastics Raw Materials (\$/Kg)**

Source: Turk Stat & ITC Trade Statistics

### 3.2.5. FOREIGN TRADE DEFICIT

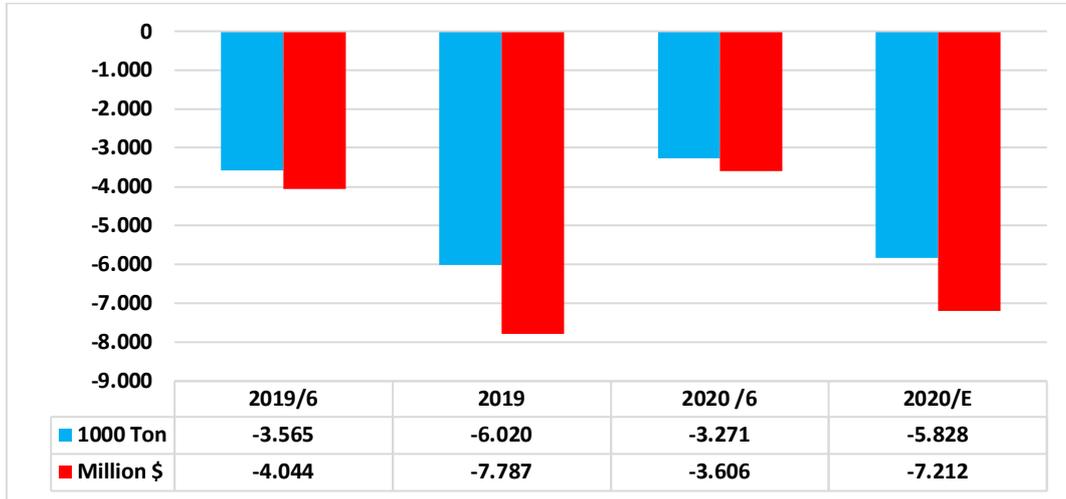
Turkey is a country that is constantly giving foreign trade deficit in the plastic raw materials trade. In the first half of 2020, plastic raw materials foreign trade deficit realized as 3.27 million tons and 3.6 billion dollars. Foreign trade deficit decreased by 8.3% on amount and 10.8% on value basis compared to the peer period of 2019.

By the end of 2020, plastic raw material foreign trade deficit is expected to decrease by 3.2% on amount and 7.4% on value basis compared to 2019.

	2019/6	2019	2020 / 6	2020/T	% Change 2020/2019 ( 6 M )	% Change 2020/2019 ( E )
<b>1000 Ton</b>	-3,565	-6,020	-3,271	-5,828	-8.3	-3.2
<b>Million \$</b>	-4,044	-7,787	-3,606	-7,212	-10.8	-7.4

**Table 22: Foreign Trade Deficit of Plastics Raw Materials ( 6 Months Comparison )**

Source: Turk Stat & ITC Trade Statistics



**Graphic 20 : Foreign Trade Deficit of Plastics Raw Materials ( 6 Months Comparison )**

Source: Turk Stat & ITC Trade Statistics

### 3.3. DOMESTIC CONSUMPTION

The domestic demand for plastic raw materials decreased by 7.5% on amount and 10.9% on value basis in the first half of 2020 compared to the same period of the previous year and realized as 3.77 million tons and 4.16 billion dollars.

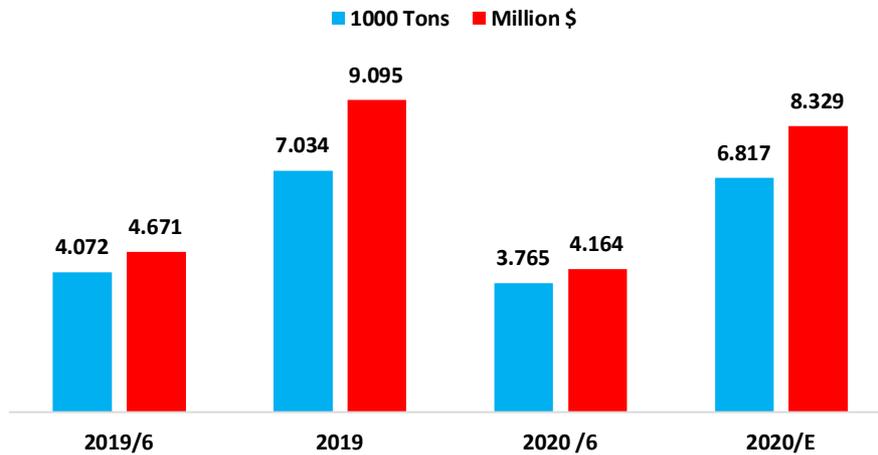
Considering that the negative effects in many sectors, especially in the construction, automotive and tourism sectors, which consume plastics, the domestic consumption of plastic raw materials is estimated to decrease by 3.1% on amount and 8.4% on value basis by the end of 2020 compared to 2019, and reach to 6.82 million tons and 8,33 billion dollars.

	2019/6	2019	2020 / 6	2020/T	% Change 2020/2019 ( 6 M )	% Change 2020/2019 ( E )
1000 Tons	4,072	7,034	3,765	6,817	-7.5	-3.1
Million \$	4,671	9,095	4,164	8,329	-10.9	-8.4

**Table 23: Plastics Raw Materials Domestic Consumption ( 6 Months Comparison )**

Source: Turk Stat & ITC Trade Statistics

The intellectual property rights of this report belong to PAGEV and cannot be quoted even partly, without being shown as a source.



**Graphic 21: Plastics Raw Materials Domestic Consumption ( 6 Months Comparison )**

Source: Turk Stat & ITC Trade Statistics

### 3.4. SUPPLY AND DEMAND EQUILIBRIUM AND 2020 ESTIMATES

In the first half of 2020, 89% of the domestic consumption of plastic raw materials was met by imports. In line with the expectations in the plastics industry in 2020, it is estimated that production in the plastic raw material industry will decrease by 2.5%, imports by 1.2%, domestic consumption by 3.1%, but exports will increase by 10.9%. According to this estimation, 5 million 828 thousand tons of foreign trade deficit will be given in the plastic raw material sector at the end of the year, and 88% of the plastic raw material consumption is expected to be met by imports.

	2019/6	2019	2020 / 6	2020/T	% Change 2020/2019 ( 6 M )	% Change 2020/2019 ( E )
<b>Production</b>	507	1,014	494	989	-2.5	-2.5
<b>Imports</b>	4,059	7,023	3,856	6,941	-5.0	-1.2
<b>Exports</b>	494	1,003	586	1,113	18.6	10.9
<b>Domestic Consumption</b>	4,072	7,034	3,765	6,817	-7.5	-3.1
<b>Foreign Trade Deficit</b>	-3,565	-6,020	-3,271	-5,828	-8.3	-3.2

**Table 24: Supply and Demand Equilibrium in Plastics Raw Materials (1000 Tons)**

Source: Turk Stat & ITC Trade Statistics

The intellectual property rights of this report belong to PAGEV and cannot be quoted even partly, without being shown as a source.

#### **4. CONCLUSION**

Evaluating the negative developments in the market due to the Covid-19 outbreak, the government tried to prevent these negativities with the Economic Stability Shield program. The highlights of the measures taken within the scope of the program and the topics that the plastics industry can benefit from are as follows.

- Social Security, VAT, withholding payments,
- Postponement of bank loan repayments
- Additional stocks of exporters Credit guarantee fund support
- Force majeure registry application in case of default
- Short Term Working Grant
- Compensated working time Rediscount credits

The corona virus outbreak has confirmed the fact that plastics are of vital importance in many areas from food to packaging, especially in hygiene and medical. In many countries of Europe, the plastics industry has been defined as the "vital sector" by the governments. As in Turkey, use of disposable plastic in food packaging has also been increasing in Europe. As a matter of fact, the Ministry of Labor has decided to use single-use plastic in company cafeterias.

Corona virus outbreak caused by adverse developments in the world and Turkey's economy is stagnant in the plastics industry makes it difficult to compete with or even declining sales prices and narrow profit margins. Firms that cannot compete with changes in their prices due to the increase in competition have to prioritize "Cost Competition" for profitability. To create a cost difference that will make the competition successful, it is necessary to apply the changing saving techniques of the changing world apart from the known methods.

One of the most important problems of the sector is that it cannot provide sufficient added value. There are two main ways to provide higher added value in production and export. These; To produce innovative products with high added value and / or to increase profit margin by reducing costs without sacrificing quality. It is inevitable for the sector to produce in accordance with European standards and environment to increase competitive production and export opportunities in global markets without sacrificing quality.

Another important problem of the sector is that although only 12% of the raw material need is met by domestic production, it is deprived of the opportunities to supply raw materials at more economical prices by imposing taxes on imports in order to protect domestic production. This situation reduces the competitive export opportunities of the sector in global markets to protect the domestic raw material producer. Domestic producers should be protected by applying incentives to reduce production and investment costs, rather than imposing taxes on raw material imports. If the production of plastic raw materials does not meet the needs, the obstacles to imports should be removed. The plastic sector should be included in strategic investments regardless of foreign trade data and the minimum investment amount should be determined as 5 million dollars.



**PAGEV**

Turkish Plastics Industry Follow-Up Report 2020/6

**BİLİNÇLİ BİR TOPLUM  
AYDINLIK BİR GELECEK  
GÜZEL BİR ÜLKE VE  
DAHA YAŞANILABİLİR  
BİR DÜNYA İÇİN  
AMBALAJ ATIKLARINI  
KAYNAĞINDA  
DOĞRU AYRIŞTIRARAK  
GERİ DÖNÜŞÜME SEN DE  
DESTEK OL**

PAGÇEV, T.C. Çevre ve Şehircilik Bakanlığı tarafından  
Ambalaj Atıklarının Yetkilendirilmiş Kuruluşudur  
PAGÇEV bir PAGEV GERİ DÖNÜŞÜM İKTİSADI İŞLETMESİDİR

**PAGÇEV**  
pagcev.org

The intellectual property rights of this report belong to PAGEV and cannot be quoted even partly, without being shown as a source.



# PLASTİK SEKTÖRÜNÜN BİRLEŞTİRİCİ GÜCÜ



PAGEV'in üye olduğu uluslararası kuruluşlar



[www.pagev.org](http://www.pagev.org)

Halkalı Caddesi No: 132/1 Tez-iş İş Merkezi Kat: 4 Sefaköy- İstanbul  
Tel. +90 (212) 425 13 13 Fax. +90 (212) 624 49 26 E-Mail. [pagev@pagev.org.tr](mailto:pagev@pagev.org.tr)

Yapımı: Kadir Çarça

The intellectual property rights of this report belong to PAGEV and cannot be quoted even partly, without being shown as a source.