PAGEV TURKISH

PLASTIC CONSTRUCTION PRODUCTS SECTOR FOLLOW-UP REPORT 2015 - 9 M





EXECUTIVE SUMMARY

Among all applications of plastics, construction materials, having 20 % - 25 volume is the second most important area after packaging applications.

Share and the growth of plastic construction materials industry continues to increase in total world plastics industry. Total foreign trade volume of plastic construction materials rose to 28 million Tons and USD billion 92 in 2014. Turkey is a net exporter in plastics construction materials foreign trade.

In the 9 months of 2015 compare to the peers period of 2014 on unit base; production increased by % 2, imports stayed at the same level, exports decreased by % 17, domestic consumption increased by % 14 and foreign trade surplus decreased by % 19. On the other hand, in the same period and on value base; production decreased by % 2, imports declined by % 2, exports decreased by % 23, domestic consumption increased by % 4, foreign trade surplus decreased by % 29.

Considering the realization of the 9 months of 2015, It is estimated for the end of 2015 that; production will reach to 1,9 million Tonss and USD billion of 8,3 by increasing % 4 on unit base and % 7 on value base, imports will reach to 65 thousand Tonss and USD million of 417 by decreasing % 3 on unit base and increasing by % 3 on value base, exports will reach to 589 thousand Tonss and USD billion of 1,43 decreasing by % 16 on unit base and decreasing by % 22 on value base, domestic consumption will be 1,37 million Tonss and USD billion of 7,3 increasing by % 16 on unit base and % 15 on value base,

In 2015 the industry will give 523 thousand Tons and USD billion of 1,1 foreign trade surplus, % 31 of production on unit base and % 17 of it on value base will be exported, % 5 of domestic consumption on unit base and % 6 of it on value base will be met by imports.

According to PAGEV's records around 1500 companies are operating In Turkish plastics construction materials industry. % 56 of the companies are located in Istanbul, and 83 % are operating in 10 provinces of Turkey.

PROVINCES	NO OF Companies	% SHARE
İCTANIDUU	001	
İSTANBUL	836	55,7
ANKARA	88	5,9
İZMİR	86	5,7
BURSA	49	3,3
KAYSERİ	23	1,5
KONYA	46	3,1
KOCAELİ	38	2,5
MERSIN	32	2,1
ADANA	29	1,9
SAMSUN	23	1,5
10 Provinces Totalı	1250	83,3
Others	250	16,7
Total	1500	100,0

Sheet 1: Plastics Construction Materials Manufacturers by Provinces

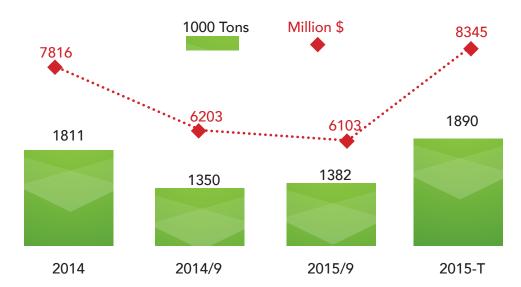
The companies operating in plastics construction materials industry produce more than 60 kinds of products. The main products which the manufacturers focus on are the; profiles, fresh water pipes, waste pipes, pipe connection elements, window systems, bathroom and kitchen sinks, and hoses.

MAIN PRODUCER	% SHARE OF COM by Main Prod	
Profile	11,9	
Fres Water Pipes	11,5	
Windows System and accessories	10,4	
Waste pipes	9,7	
Pipe Connection parts	7,5	
Bathroom, Kitchen sink	5,5	
Hose	4,8	
Water and liquid covering	4,3	a Bank
Insulation materials	4,3	' Dat
Decorative ceiling coverings	3,8	Source: PAGEV Data Bank
Jacuzzi, blinds, shutter	3,5	urce:
Others	22,8	Sou
Total	100	

Sheet 2: % Share of Companies By Main Products

Production of plastics construction materials realized as 1 million 382 thousand Tons and USD billion of 6,1 in the 9 months of 2015, increasing by 2,4 % on unit base and decreasing by % 1,6 on value base, compared to the peers period of 2014.

Total production is expected to be 1,9 million Tons and USD billion of 8,3 at the end of 2015, increasing by % 4 on unit and % 6,8 in value base, compare to 2014.



Form 1: Plastics Construction Materials Production

PLASTICS CONSTRUCTION MATERIALS IMPORTS

Imports of plastics construction materials realized as 49 thousand tons and USD million of 313 in the 9 months of 2015, staying by the same level on unit base and decreasing by % 2 on value base, compared to the peers period of 2014.

Total imports are expected to be 65 thousand tons and USD million of 417 at the end of 2015, decreasing by % 3 on unit base and increasing by % 3 on value base, compare to 2014.



Form 2: Plastics Construction Materials Imports



HS 2014/9 2015/9 2015-1 PRODUCT DESCRIPTION NO MONOFILAMENT, BAR, PROFILES FROM 3916 PLASTIC-CROSS SECTION OVER 1MM 3917 TUBES, PIPES, HOSES FROM PLASTIC; 209 159 148 197 -6 GASKET, ELBOW, UNION ETC FLOOR COVERINGS FROM PLASTIC -3918 53 70 76 -8 INCL. WALL AND CEILING COVERINGS BATHTUB, SHOWER, SINK, BIDET, WATER-CLOSET PAN AND HARDWARE FROM PLASTIC 3922 28 35 38 50 77 T K CONSTRUCTION MATERIALS 3925 27 39 30 37 49 23 FROM PLASTIC TOTAL CONSTRUCTION MATERIALS 417 3 404 313

Sheet 4: Plastics Construction Materials Imports (Million \$)

Plastics construction materials taking part in HS Code 3918 make up the biggest part of the total imports of plastics construction materials on unit base while the materials in HS Code 3917 on value base

PLASTICS CONSTRUCTION MATERIALS IMPORTS BY COUNTRIES

Turkey imports plastics construction materials from almost 70 countries. 10 countries shared 72 % on unit base and 78 % of total imports on value base in the 9 months of 2015.

Germany, China, France, Italy and the USA are the major import partners of Turkey in the plastics construction materials imports.

COUNTERIES	1000 TONS	MILLION \$	% TONS	% Million \$
Germany	11	69	19	22
China	12	60	20	19
France	5	35	9	11
ltaly	4	23	6	8
USD	2	18	3	6
UK	2	12	2	4
Belgium	4	7	7	2
Poland	2	7	4	2
Spain	1	7	1	2
Chez Rep.	1	7	1	2
10 Countries Total	44	245		Ž
Others	17	67	28	22 E:
TOTAL	61	313	100	Source: TUIK

Sheet 5: Plastics Construction Materials Imports By Countries

PLASTICS CONSTRUCTION MATERIALS EXPORTS

2015 yılının 9 ayında Plastics Construction Materials Exports 2014 yılının eş dönemine kıyasla miktar bazında % 17, değer bazında da % 23 gerileyerek 441 bin Tons ve 1,07 milyar dolar olarak gerçekleşmiştir.

Yıl sonunda ihracatın 589 bin Tons ve 1,43 milyar dolara çıkması ve 2014 yılına kıyasla miktar bazında % 16 değer bazında da % 19 gerilemesi beklenmektedir.

Plastics Construciton Materials Exports 1000 Tons Million \$ 1825 1429 Form 3: **Plastics** Construction 1392 704 1072 589 Materials Exports 532 441 2014/9 2014 2015/9 2015-T HS 2014/9 2015/9 2015-T PRODUCT DESCRIPTION 2014 NO MONOFILAMENT, BAR, PROFILES FROM PLASTIC-CROSS SECTION OVER 1MM 3916 147 -21 3917 TUBES, PIPES, HOSES FROM PLASTIC; 267 -17 GASKET, ELBOW, UNION ETC FLOOR COVERINGS FROM PLASTIC -3918 13 INCL. WALL AND CEILING COVERINGS 3922 PAN AND HARDWARE FROM PLASTIC **CONSTRUCTION MATERIALS** 3925 86 101 FROM PLASTIC TOTAL CONSTRUCTION MATERIALS Sheet 6: Plastics Construction Materials Exports (1000 Tons)

PLASTICS CONSTRUCTION MATERIALS EXPORTS

Plastics construction materials taking part in HS Code 3917 make up the biggest part of the total exports of construction plastics on unit and value base.

	PRODUCT DESCRIPTION	2014	2014/9	2015/9	2015-T	INCREASE % 2015/2014 O	INCREASE % 2015/2014
3916	MONOFILAMENT, BAR, PROFILES FROM PLASTIC-CROSS SECTION OVER 1MM	407	307	221	295	-28	-28
3917	TUBES, PIPES, HOSES FROM PLASTIC; GASKET, ELBOW, UNION ETC	925	712	554	738	-22	-20
3918	FLOOR COVERINGS FROM PLASTIC – INCL. WALL AND CEILING COVERING:	38	30	22	29	-26	-24
3922	BATHTUB, SHOWER, SINK, BIDET, WATER-CLOSE PAN AND HARDWARE FROM PLASTIC	T 128	96	82	109	-15	-15
3925	CONSTRUCTION MATERIALS FROM PLASTIC	326	248	193	258	-22	-21
	TOTAL CONSTRUCTION MATERIALS	1.825	1.392	1.072	1.429	-23	-22

Sheet 7: Plastics Construction Materials Exports (1000 \$)

Source: TUIK

PLASTICS CONSTRUCTION MATERIALS EXPORTS BY COUNTRIES

Turkey exports construction plastics materials to more than 150 countries. 10 countries shared 61 % on unit base and 56 % of total export on value base in the first half of 2015.

Iraq, Azerbaijan, Russian Fed. Libya and Georgia are the major export partners of Turkey for the construction plastics exports.

	2015/	9		
Counteries	1000 Tons	MILLION \$	% Tons	% MILLION \$
Iraq	95	192	22	18
Russia	18	52	4	5
Libya	21	50	5	5
Azerbaiajn	25	60	6	6
Türkmenistan	19	46	4	4
Iran	17	44	4	4
Georgia	24	48	5	4
North Cyprus	23	44	5	4
Romania	17	33	4	3
Bulgaria	9	29	2	3
10 Countries Total Total	268	599		
Others	173	471	39	44
TOTAL	441	1.070	100	100

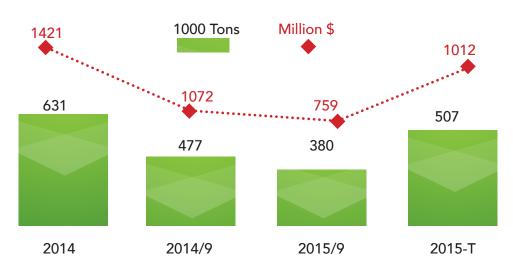
Sheet 8: Plastics Construction Materials Exports By Country Distribution

FOREIGN TRADE BALANCE OF CONSTRUCTION PLASTICS

Turkey is a net exporter in foreign trade of construction plastics materials. Foreign trade surplus realized as 380 thousand tons and USD million of 759 in the 9 months of 2015, decreasing by % 20 on unit and % 26 on value base comparing to the peers period of 2014.

The foreign trade surplus in plastics construction materials is expected to be 507 thousand tons and USD billion of 1,1 at the end of 2015, decreasing by % 20 on unit and % 29 on value base compared to 2014.

Plastics Countruction Materials Foreign Trade Surplus



Form 4: Plastic construction products foreign trade balance

FOREIGN TRADE BALANCE OF CONSTRUCTION PLASTICS

HS NO	PRODUCT DESCRIPTION	2014	2014/9	2015/9	2015-T	INCREASE % 2015/2014 (9)	INCREASE % 2015/2014
3916	MONOFILAMENT, BAR, PROFILES FROM PLASTIC-CROSS SECTION OVER 1MM	185	139	106	141	-24	-24
3917	TUBES, PIPES, HOSES FROM PLASTIC; GASKET, ELBOW, UNION ETC	328	250	203	271	-19	-17
3918	FLOOR COVERINGS FROM PLASTIC – INCL. WALL AND CEILING COVERINGS	-14	-9	-12	-17	43	18
3922	BATHTUB, SHOWER, SINK, BIDET, WATER-CLOSE PAN AND HARDWARE FROM PLASTIC	22	16	15	19	-10	-14
3925	CONSTRUCTION MATERIALS FROM PLASTIC	109	81	68	91	-16	-16
	TOTAL CONSTRUCTION MATERIALS	631	477	380	507	-20	-20

Sheet 9: Foreign trade balance of construction plastics (1000 Tons)

Plastics construction materials taking part in HS Code 3917 make up the biggest part of the total foreign trade surplus of construction plastics in the 9 months of 2015.

HS NO	PRODUCT DESCRIPTION	2014	2014/9	2015/9	2015-T	INCREASE % 2015/2014 (9)	INCREASE % 2015/2014
3916	MONOFILAMENT, BAR, PROFILES FROM PLASTIC-CROSS SECTION OVER 1MM	356	268	183	244	-32	-31
3917	TUBES, PIPES, HOSES FROM PLASTIC; GASKET, ELBOW, UNION ETC	716	553	406	542	-27	-24
3918	FLOOR COVERINGS FROM PLASTIC – INCL. WALL AND CEILING COVERINGS	-38	-26	-31	-41	18	8
3922	BATHTUB, SHOWER, SINK, BIDET, WATER- CLOSET PAN AND HARDWARE FROM PLASTIC	100	60	44	59	-27	-41
3925	CONSTRUCTION MATERIALS FROM PLASTIC	287	217	156	209	-28	-27
	TOTAL CONSTRUCTION MATERIALS	1421	1.072	759	1.012	-29	-29

Sheet 10: Foreign Trade Balance in Plastics Construction Materials (Million \$)

Source: TUIK

AVERAGE UNIT PRICES IN FOREIGN TRADE OF PLASTIC **CONSTRUCTION MATERIALS**

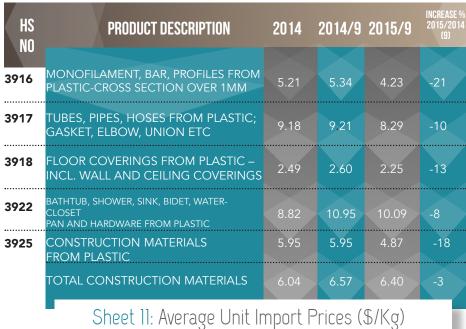
Even though Turkey has foreign trade surplus in construction plastics materials, import unit prices are more than 2 times of the export unit prices. This is a result of the fact that Turkey imports construction plastics materials with higher added-value while exports with lower added-value.



Form 5: Unit Foreign Trade Prices for Plastics Contruction Materials (\$/KG)

The average unit import price realized as 6,4 USD/Kg in the 9 months of 2015, declining by % 3 compared to peers period of 2014. On the other hand average unit export price decreased to 2,43 USD/Kg decreasing by % 7 in the same period.

AVERAGE UNIT PRICES IN FOREIGN TRADE OF PLASTIC CONSTRUCTION MATERIALS



Source: TUIK

HS NO	PRODUCT DESCRIPTION	2014	2014/9	2015/9	INCREASE % 2015/2014 (9)
3916	MONOFILAMENT, BAR, PROFILES FROM PLASTIC-CROSS SECTION OVER 1MM	2.09	2.09	1.92	-8
3917	TUBES, PIPES, HOSES FROM PLASTIC; GASKET, ELBOW, UNION ETC	2.63	2.67	2.50	-6
3918	FLOOR COVERINGS FROM PLASTIC – INCL. WALL AND CEILING COVERINGS	2.31	2.31	2.00	-14
3922	BATHTUB, SHOWER, SINK, BIDET, WATER-CLOSET PAN AND HARDWARE FROM PLASTIC	4.99	4.95	4.48	-10
3925	CONSTRUCTION MATERIALS FROM PLASTIC	2.82	2.88	2.54	-12
	TOTAL CONSTRUCTION MATERIALS	2.59	2.62	2.43	-7
	Sheet 12: Average Unit E	Export F	Prices ((\$/Kg)	- 1

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DOMESTIC CONSUMPTION OF CONSTRUCTION PLASTICS

Domestic consumption of plastics construction materials realized as 989 thousand tons and USD billion of 5,3 in the 9 months of 2015, increasing by 14 % on unit and % 4 on value base, compared to the peers period of 2014.

Total domestic consumption is expected to be 1,37 million tons and USD billion of 7,3 at the end of 2015, increasing by % 16 on unit and % 15 on value base, compare to 2014.



Form 6: Plastics Construction Materials Domestic Sales

In the 9 months of 2015 compare to the peers period of 2014 on unit base;

- Production increased by % 2,
- Imports stayed at the same level,
- Exports decreased by % 17,
- Domestic consumption increased by % 14,
- Foreign trade surplus decreased by % 19.

	Production	1.811	1.350	1.382	1.890	2	4
Sheet 13: Supply and Demand	Import	67	49	49	65	0	-3
and Demand Equilibrium in Plastics Construction Materials (1000 Tons)	Export	704	532	441	589	-17	-16
	Domestic Consumption	1.174	867	989	1.366	14	16
	Foreign Trade Deficit / Surplus	637	483	393	523	-19	-18
	EXPORT / PRODUCTION (%)	39	39	32	31		
	•						

2014/9 2015/9 2015-T

2014

On the other hand, in the same period and on value base;

- Production decreased by % 2,
- Imports declined by % 2,
- Exports decreased by % 23,
- Domestic consumption increased by % 4,
- Foreign trade surplus decreased by % 29.

	2014	2014/9	2015/9	2015-T	INCREASE % 2015/2014 (9)	INCREASE % 2015/2014
Production	7.816	6.203	6.103	8.345	-2	7
Import	404	320	313	417	-2	3
Export	1.825	1.392	1.072	1.429	-23	-22
Domestic Consumption	6.395	5.131	5.344	7.333	4	15
Foreign Trade Deficit / Surplus	1.421	1.072	759	1.012	-29	-29
EXPORT / PRODUCTION (%)	23	22	18	17		
IMPORT / DOMESTIC CONSUMPTION (%)	6	6	6	6		

Sheet 14: Supply and Demand Equilibrium in Plastics Construction Materials (Million\$)

2015 EXPECTATIONS

Considering the realization of the first 6 months of 2015, It is estimated for the end of 2015 that;

- Production will reach to 1,9 million tones and USD billion of 8,1 by increasing % 4,5 in unit base and % 3,8 in value base,
- Imports will reach to 68 thousand tons and USD million of 421 by increasing % 2,3 in unit base and % increasing by % 3,8 in value base,
- Exports will reach to 1,4 million tons and USD billion of 1,73 decraesing by % 14 in unit base and decreasing by % 19 in value base,
- Domestic consumption will be 1,4 million tones and USD billion of 7,1 by incresing % 15 in unit base and % 11 in value base,
- In 2015 the industry will give 539 thousand tone and USD billion of 1,1 foreign trade surplus,
- % 32 of production in unit base and % 18 of it in value base will be exported,
- % 5 of domestic consumption in unit base and % 6 of it in value base will be met by imports.





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