



FIRAT

FIRAT was founded in 1972 to make production in the field of plastic construction materials. FIRAT, who has always followed its principle of "Quality Production at All Times" and "quality product diversity", has managed to become "the leader of sector" as well as "the export leader of sector" as a result of serious enterprises.

With its plastic-based products, FIRAT makes production for various sectors like construction, agriculture, automotive, medical and white goods. It carries out its manufacturing process for these sectors in its factories of 500.000 m² in total in Istanbul-Buyukcekmece and Ankara-Sincan. With its established capacity of 420.000 ton/ year, FIRAT owns one of the five biggest manufacturing complex of Europe.

According to the survey of Istanbul Chamber of Commerce in 2006, FIRAT ranks as the 41st amongst the 500 big industrial establishment of Turkey. FIRAT ranks as the 35th one in the private sector ranking. According to the Corporate Tax Ranking of T.R. Ministry of Finance Revenue Administration Department in 2006, FIRAT is the 49th amongst the top tax payer companies of Turkey.



As of the end of 2006, the number of personnel working under FIRAT structure is 1500. Believing in the understanding of "The most valuable factor is human", FIRAT has been constantly arranging in service trainings both for the personnel to increase their experience at work and their corporate knowledge.

Product Diversity and Groups

Product diversity of FIRAT is over 4500. For our customers to obtain the optimum benefit and satisfaction out of these products, FIRAT makes production as integrated (completing one another) systems.

Thousands of FIRAT products like PVC Door and Window Profiles, PVC Rain Gutters and Fittings, PVC Drinking Water and Waste Water Pipes, PVC Borewell pipes and fittings, PVC Hose Groups, Rubber and PE Based Hoses, PPRC Sanitary Installation Pipes and Fittings, HDPE Pipes, LDPE Pipes, EF Fittings, PE Fittings, PE 80 Natural gas Pipes, Drainage Pipes, Telecommunication Cable Protection Pipes, EPDM Sealing Manufacturing, Metal Injection Production (hinge and window connection components), PEX Mobile System and Floor Heating Pipes, Pex Al Pex Pipe and PPSU Fittings, Drip Watering Pipes, Medical Products render service in numerous parts of Turkey and the world.

Seeking to solve the infrastructure problems of countries, FIRAT can manufacture high pressure resistant urban network PE 100 pipes of 1600 mm diameter. By producing PE 100 Pipe with a dimension of 1200 mm, pressure resistance of 16 bar and wall thickness of 110 mm, in order to solve the fresh water problem of Istanbul. The pipes, fixed to the 50 m depth of Bosphorus with concrete collars, are the ever thickest PE pipes of the world. With the Bosphorus passage project, an additional fresh water amount of 300.000 cubic meters is pumped to the European side of the city every day.

FIRAT manufactures FKS canalisation pipe, the testable operating life of which is 100 years. These pipes which can be manufactured up to 2400 mm diameter from HDPE (high density polyethylene) raw material are resistant against ground motion, gnawing animals, plant roots and chemical wastes. FKS pipes are manufactured with German company Krahn technology and licence.



Triplex pipes again manufactured in FIRAT facilities are used in out door installations and grounds as well as domestic connections, predominantly in sewer line, rain water drainage lines, industrial waste water installations, water conveying pipes and drainage systems.

Triplex pipe has big advantages like high flow performance, external load resistance, long operating life, transport and storage convenience, its becoming economic, endurance against chemical substances, price and maintenance convenience, imperviousness and filter-free operation choice.

FIRAT is the single firm in the world's plastic sector manufacturing all of the PVC window and door system components excluding glass and screw. Since full harmony of PVC window and door is only possible with integrated manufacturing process; FIRAT manufactures PVC Profile, EPDM seal, reinforcement steel and whole range of metal accessories in integrated manner within its facilities.

FIRAT is capable of conducting welding, heavy rain and wind resistance, blow and milled blow resistance, compression, shear and break-off strength ring rigidity (strength of FKS and Triplex pipes against soil load) tests in its the state-of-the-art test and analysis laboratories. Our products are offered to the service of our customers only after they are confirmed by the Quality Assurance Group related to their conformity to production, sale and outlet.

Following completion of all quality control tests, FIRAT products are offered to the market with "FIRAT Quality Assurance Confirmation". FIRAT holds international quality certificates such as RAL GOST, SKZ, EMI, DVG, TSE as well as ISO 14001, OHSAS 18001 and ISO 9001 system certificates.

FIRAT products achieved satisfaction of customers in more than 60 countries and deserved a distinguished place in the markets.



To develop, grow, struggle to achieve perfection through advanced technology and utilize all its resources in order to ensure long lasting customer satisfaction are the objectives of FIRAT.

Due to reasons such as reliable, strong, easily accessible and easy-to-use products and perfect aftersale support, FIRAT achieves its target of perfection.

FIRAT Headquarters Building



Our Notion of Quality

Quality Control Process employed in FIRAT laboratories consists of three phases:

1. Input Quality Control
2. Process Quality Control
3. Output-Final Quality Control

Input Quality Control

All types of raw materials and auxiliary materials from our suppliers are subjected to Input Quality Control tests according to the quality-production standards set out by FIRAT. Samples randomly chosen from each lot of raw materials and auxiliary materials supplied in lots by our suppliers have to pass through Appearance Marking Compliance, Physical Compliance, Chemical Compliance and Functional Compliance tests in GKK Laboratories and obtain **"Suitable for Production"** approval.

Process Quality Control

In the production process implemented with raw materials and auxiliary materials bearing "Suitable for Production" approval, samples taken on production lines during or soon after production are passed through Process Quality Control tests in FIRAT laboratories determined by national (TSE) and international (DVGW, SKZ, EN, DIN, etc.) standard institutions and recorded regularly. Main Process Quality Control tests are as follows:

- Blow Strength Test (strength against external impacts)
- Hydrostatic Compression Test (for products to operate in pressurized lines)
- Longitudinal Variation (resistance against heat)
- Density Test
- Homogeneity Test
- Melt Flow Speed Test
- Density and MFI Test
- Cross Linking Ratio Test

Quality Tests *



Density



MFI



Homogeneity

At the phase of Process Quality Control; diameter, thickness and ovality measurements are conducted by ultrasonic measurement devices on all production lines in fully automated manner simultaneously with the production process and faulty production is not allowed upon activation of sound and light warning system under out of standard cases. Our products have to pass through all tests conducted in accordance with the control frequency and numbers set out in the standards and obtain **"Suitable for Sale"** approval.

Output-Final Quality Control

Our products which obtained "Suitable for Sale" approval also have to get **"Suitable for Output"** approval passing through Packaging Compliance, Pack Compliance, Description and Label Compliance checks soon after automatic packaging and wrapping processes.

In addition to the quality control tests conducted in FIRAT laboratories, all our products are sampled from our production lines regularly twice a year and subjected to quality and sanitary compliance tests by international test and certification institutions such as DVGW, SKZ, SKZ, SABS.

Our products which passed through all these tests and met the required quality conditions are offered to our customers.

*FIRAT has the state-of-art quality, control and test laboratory in the sector.



ct strength



Change in length



Pressure test



Cross Linking

Corporate Training

Relying on the understanding of "**Human comes first**", FIRAT invests in human. FIRAT provides its employees with miscellaneous regular intra-company training programs and offers them opportunities to join necessary training, seminar and congress events both within the country and abroad for the purpose of enhancing both their own corporate know-how and business performance.

FIRAT is the leading organization of its sector also in the area of corporate training through clearly and precisely conveying targeted results to its employees, ensuring its employees to enjoy and efficiently implement their assignments and become more participative in the processes, offering them all types of business, training and organization facilities and acting as a "**team**" with all its employees.

Primarily emphasizing the fact of knowledge-based progress in its training programs, FIRAT adopted the principles of utilizing knowledge and technology in its production processes and aftersale services through researcher and problem-solving, result-oriented employees and ensuring continuous customer satisfaction through regular personnel and dealer training programs.



FIRAT ISO Standard preparatory meeting, Brussels- Belgium



Environment Friendly FIRAT

Producing by the use of "Environmental Friendly Production Technologies" since its foundation, FIRAT proves its sensitivity toward environmental health through its **Environmental Management System** established in 2002 and considers this area as a "Window of Management".

Upon obtaining TS EN ISO 14001 2004 "Environmental Management System" certificate from SOS in 2003, FIRAT had its sensitivity toward environmental health confirmed in national and international setting.

FIRAT not only retains its established environmental consciousness within its organization but also transforms this consciousness into an environmental policy and shares it with its neighbors, suppliers and customers. Especially during domestic and foreign seminars held for its end-users, FIRAT shares its efforts made toward environmental problems and importance that should be attached to the environmental health primarily with its business partners.

95% of the products of FIRAT consists of re-cycled re-processable materials. It sends its non-household wastes and non-recyclable waste products to "Disposal Facilities" licensed by the Rep. of Turkey, Ministry of Environment and Forests and implements recycling process in these facilities.

Environment Management Programs and Projects oriented to Environmental Health Protection drawn up by the **Environmental Group** consisting of our environmental engineers are being realized within FIRAT organization.

Committing its compliance with all national and international **Environmental Legislative Directives** and **Environmental Regulations**, FIRAT fulfills all its legal liabilities and declares statutory assessment reports to the relevant Ministry.

FIRAT, awarded by ISO (Istanbul Chamber of Industry) with "Environment Incentive Reward" with its environmental project drawn up in 2006, always gives precedence to the importance of environmental health and shows necessary sensitivity in all its investments.

