

POLEX*chem*
POLYURETHANE SYSTEMS





CORPORATE

WHY CHOOSE US?

Our quality policy involves becoming a leading company in the sector, continuous improvement by keeping up with the latest technology and developing existing infrastructure, setting up a peaceful and productive working environment for employees to make them proud of our company and enhancing customer satisfaction at all times.

Our journey which started off with production of polyurethane raw materials in 1999 still continues with our 22 years of experience in various markets and fields of application in the industry. Today, we provide our customers from different industries spanning many countries of the world with professional solutions with our brand '**PolexChem**'.

Since we started manufacturing polyurethane systems in 1999, we relied on the power of science and aimed for customer satisfaction.

PolexChem, with its facility in Istanbul with an annual production capacity of 50,000 tons, is the first domestic polyurethane system manufacturer brand in Turkey. The company is recognized and trusted by hundreds of customers in more than 30 countries.

PolexChem offers its customers effective solutions in 5 different product groups for various applications.

- Footwear Systems – FootPUR
- Flexible Foam Systems – FlexPUR
- Rigid Foam Systems – RigidPUR
- CASE Systems – CasePUR
- Polyester Poliols – PolyPUR



**QUALITY
PRODUCTIVE
EFFECTIVE
RELIABLE
ECOLOGICAL**

OUR MANAGEMENT SYSTEM POLICY

We, Poleks Kimya Sanayi ve Ticaret A.Ş., adhering to all legislative regulations we are bound with in respect of energy, OHS and environment, commit to our customers, employees and all related parties to;

Continuously improve quality, OHS, environmental and energy management and performance and provide all necessary resources including achieving goals and objectives in this regard,

Promote customer orientation and ensure continuous customer satisfaction by meeting demands of customers to the fullest extent and with the highest quality,

Improve the knowledge and skills of employees by meeting their training needs within the shortest time possible and in the most appropriate way and thereby to increase motivation of our employees and render continuous internal employee satisfaction,

Create a corporate culture where it is adopted by our employees that occupational health and safety is a fundamental priority and that we are required to leave a livable environment to our children,

Establish and develop necessary organizational structure and systems for ensuring occupational health and safety and preventing work accidents and occupational diseases.

Our commitment to our customers, employees and all interested parties is to:

Reduce waste at the source, increase recycling rate and thus, prevent environmental pollution,

Use exhaustible natural resources properly,

Use natural gas and electric power efficiently which have the biggest share in the energy used in our facilities, equipment, processes,

Increase energy efficiency and performance while procuring any products and services,

Consult and keep in contact with any related parties affected by our quality, occupational health and safety, environmental and energy performance.



POLEXCHEM PLANT AND PREMISES

We manufacture polyurethane systems with an annual capacity of 50.000 tons and high quality standards in our facilities with a closed area of 45.000 m². We consistently update our portfolio by adding new ones to our Porexchem branded products recognized and trusted by hundreds of customers in more than 30 countries.

Since we started manufacturing polyurethane systems in 1999, we relied on the power of science and aimed for customer satisfaction. Our company attaching great importance to innovation, technology and R&D endeavors for 7/24 customer support and satisfaction with its qualified manpower and technological infrastructure developing thanks to year-by- year increasing investments.

We, as PorexChem, always strive to add value to our customers with our commitment to customer cooperation and satisfaction, innovation technology and environmental awareness.



SINCE 1999



**50.000 TON
ANNUAL CAPACITY**



**45.000 M²
CLOSED AREA**



**FULLY AUTOMATED
PRODUCTION SYSTEM**

POLEXCHEM R&D

PolexChem, one of the leading system houses in polyurethane industry, keeps on its R&D activities intensively in line with the needs of the industry. With its goal of leading the industry, recently it has substantially improved its human resources for R&D and its laboratory facilities.

PolexChem System House expands its product portfolio through its R&D activities continuously. The production which was started as a manufacturer of systems for footwear in 1999 is currently growing with Rigid, Flexible and CASE polyurethane systems. Our product portfolio appeals to many industries, particularly footwear, construction, furniture and automotive.

POLEXchem
POLYURETHANE SYSTEMS



**EXPERT
R&D TEAM**



**INNOVATIVE
SOLUTIONS**



**TECHNICAL
SUPPORT**



**CUSTOMIZED
SYSTEMS**



**COOPERATION
WITH UNIVERSITIES**

Our R&D Projects are continued in cooperation with the prominent universities of our country. Product quality is consistently improved based on ongoing R&D activities.

Technical support at PolexChem is provided by R&D department. R&D experts who perform product development activities and have a command of product structure and specifications satisfy the needs of customers in the field promptly and properly.

RigidPUR
Rigid Foam Systems



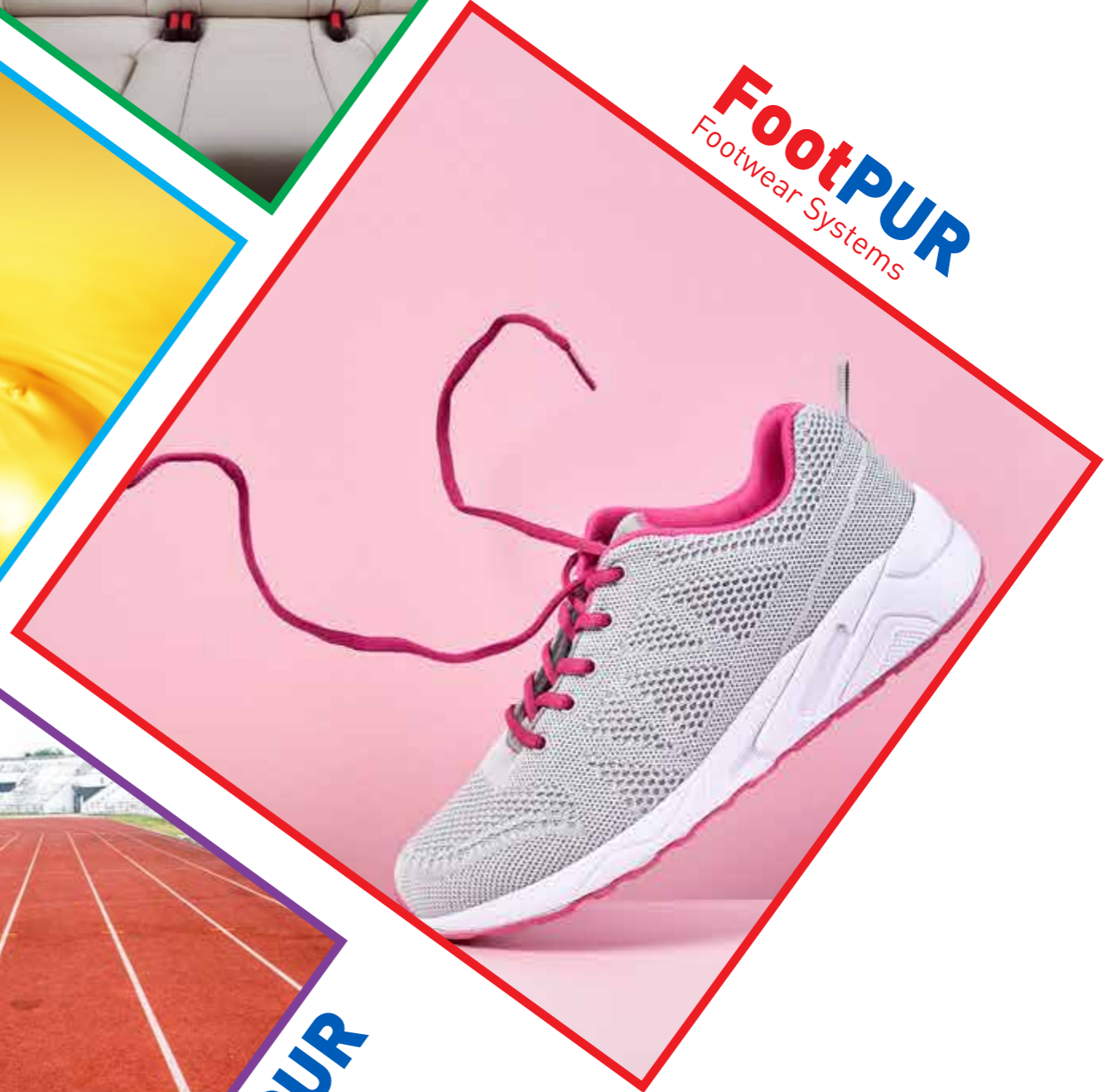
FlexPUR
Flexible Foam Systems



POLYPUR
Polyester Polyols



FootPUR
Footwear Systems



POLEXchem
POLYURETHANE SYSTEMS

CasePUR
Special Systems



FootPUR

Footwear Systems

Polexchem FootPUR Systems consist of polyurethane systems for slippers, shoe soles and safety shoes. This product family includes systems of different density, hardness, flexibility, reaction rate. Especially low density, low hardness and high flexibility systems come to the forefront.

SLIPPERS PRODUCT GROUP

- Industry Standard Slippers
- Low Density Soft/Hard Slippers
- High Performance Slippers
- Winter (Carpet) Slippers
- Ultra Low Density Slippers

SHOE SOLE PRODUCT GROUP

- Sports Sole
- Winter Sole
- Spring Sole
- Hard Summer Sole
- Wood Imitation
- Polyester Based Insole (Hot Fussbett)

SAFETY SHOE PRODUCT GROUP

- Single Density Safety
- Double Density Safety
 - Outsole (Compact)
 - Midsole



POLEXCHEM FOOTWEAR SYSTEMS ARE COMPOSED OF THREE BASIC COMPONENTS:

Polyol, Isocyanate and Catalyst.

Polyurethane has certain features superior to other materials used in the shoe industry. Some of them are wide operating range with respect to hardness and density, possibility of making productions of different features on the same machine by altering only one component and having a production potential of quite a high speed and capacity. All these features constitute the main reason for preference of polyurethane systems.

POLEXCHEM SLIPPERS PRODUCT GROUP

These are polyurethane systems with a wide operating range of density and hardness manufactured to enable the production of different types of slippers with desired features. This group comes into prominence by polyurethane systems for extra low density soft slippers and low density high flexibility slippers.

POLEXCHEM SHOE SOLE PRODUCT GROUP

These are polyurethane systems used in manufacturing soles of different features having various hardness and density levels. This product group comes into prominence by high flexibility and mechanical strength. They are compatible with casting and injection machines.

POLEXCHEM SAFETY SHOES PRODUCT GROUP

These are polyurethane systems used in manufacturing safety shoes, divided into two groups as single and double density, This group has many physical characteristics such as being highly hydrolysis resistant, flexible, wear resistant, anti-slip, oil resistant, antistatic.

FlexPUR

Polyurethane Systems

PolexChem FlexPUR Systems are MDI-based flexible products group comprising of HR Foams (office chairs and car seats), Integral Foams (armrests and handles), Visco-Elastic Foams (pillows and insoles) and Filter Systems (air and oil filter gaskets).

HR FOAM SYSTEMS

Low Density HR Foam Systems
High Density HR Foam Systems

VISCO-ELASTIC SYSTEMS

Open Mold Casting Visco-Elastic Systems
Molded Pillow Visco-Elastic Systems
Molded Insole Visco-Elastic Systems

INSOLE SYSTEMS

Low Density Insole Systems
High Density Insole Systems

FILTER SYSTEMS

Panel Filter Systems
Radial Filter Systems

INTEGRAL SYSTEMS

Low Density Integral Systems
High Density Integral Systems



POLEXCHEM HR FOAM SYSTEMS

PorexChem HR foam systems are generally used in manufacturing seat, backrest and mono-block foams for the furniture industry, automotive and office furniture. Manufacturing is performed by injecting the system into metal, epoxy and polyester molds using high or low pressure injection machines. Their main properties are high filling capacity at a wide operating range, short de-molding time, producing strong foams with high flexibility even at a low grammage.

POLEXCHEM VISCO-ELASTIC SYSTEMS

PorexChem visco-elastic systems are manufactured at different density, hardness levels and recovery times for different sectors. Low density, soft products that spring back slowly are available for pillows and medical pillows while there are higher density, harder products that spring back faster for insoles.

POLEXCHEM INSOLE SYSTEMS

PorexChem insole (fussbett) systems are used for manufacturing soft insole used to attain comfort in the industry. Shoe insoles add features like comfortableness, ergonomics and durability to the shoes besides being antibacterial.

POLEXCHEM FILTER SYSTEMS

PorexChem filter systems are used in manufacturing all kinds of air and oil filters especially in the automotive industry. Flexibility, tensile strength/elongation and tear resistance of filter systems are high. Panel and radial filter systems of various hardnesses and densities are available in the product portfolio.

POLEXCHEM INTEGRAL SYSTEMS

PorexChem integral systems feature durability, lightness and high strength at various density and hardness values. They are used in automotive, tractor and construction equipment industries. They are also convenient for use in manufacturing medical products. Products of different hardness and flexibility can be obtained as they have a wide operating range.



RigidPUR

Rigid Foam Systems

PolexChem RigidPUR Systems are rigid products group comprising of Spray Foams (roof and wall insulation), Boiler and Pipe Insulation Foams, Discontinuous / Continuous Panel Foams, Geothermal Pipe Insulation Foams, Rockwool/EPS/PIR Adhesives and Wood Imitation materials.

- SPRAY FOAM SYSTEMS**
- BOILER AND PIPE INSULATION SYSTEMS**
- INDUSTRIAL REFRIGERATION SYSTEMS**
- CONTINUOUS AND DISCONTINUOUS PANEL SYSTEMS**
- GEOTHERMAL PIPE INSULATION SYSTEMS**
- WOOD IMITATION**

POLEXCHEM SPRAY FOAM SYSTEMS

PolexChem spray polyurethane systems are rigid polyurethane foam systems with a high percentage of closed cells. Spray polyurethane foam is applied with a spraying machine due to its fast curing. The material expands and forms a continuous and closed cell foam layer of intended density on the surface it is applied. This foam is known to be the best heat insulation material in the world.

POLEXCHEM BOILER AND PIPE INSULATION SYSTEMS

PolexChem polyurethane systems for boilers and pipes are rigid polyurethane foam systems with a high percentage of closed cells. This type of system provides heat insulation by filling in the gap between the boiler or pipes and the surrounding jacket.

POLEXCHEM INDUSTRIAL REFRIGERATION SYSTEMS

PolexChem industrial refrigeration systems are used in manufacturing large refrigerators and deep freezers for supermarkets and charcuteries. This type of system is applied between pressed metal sheets by means of an injection machine, the foam fills in the gap in between and provides heat insulation.

POLEXCHEM CONTINUOUS AND DISCONTINUOUS PANEL SYSTEMS

PolexChem discontinuous and continuous panel polyurethane systems are designed for manufacturing heat insulated panels for cold rooms and construction industry. This type of system is applied between pressed metal sheets by means of an injection machine and the foam expands and forms the panel.

POLEXCHEM GEOTHERMAL PIPE INSULATION SYSTEMS

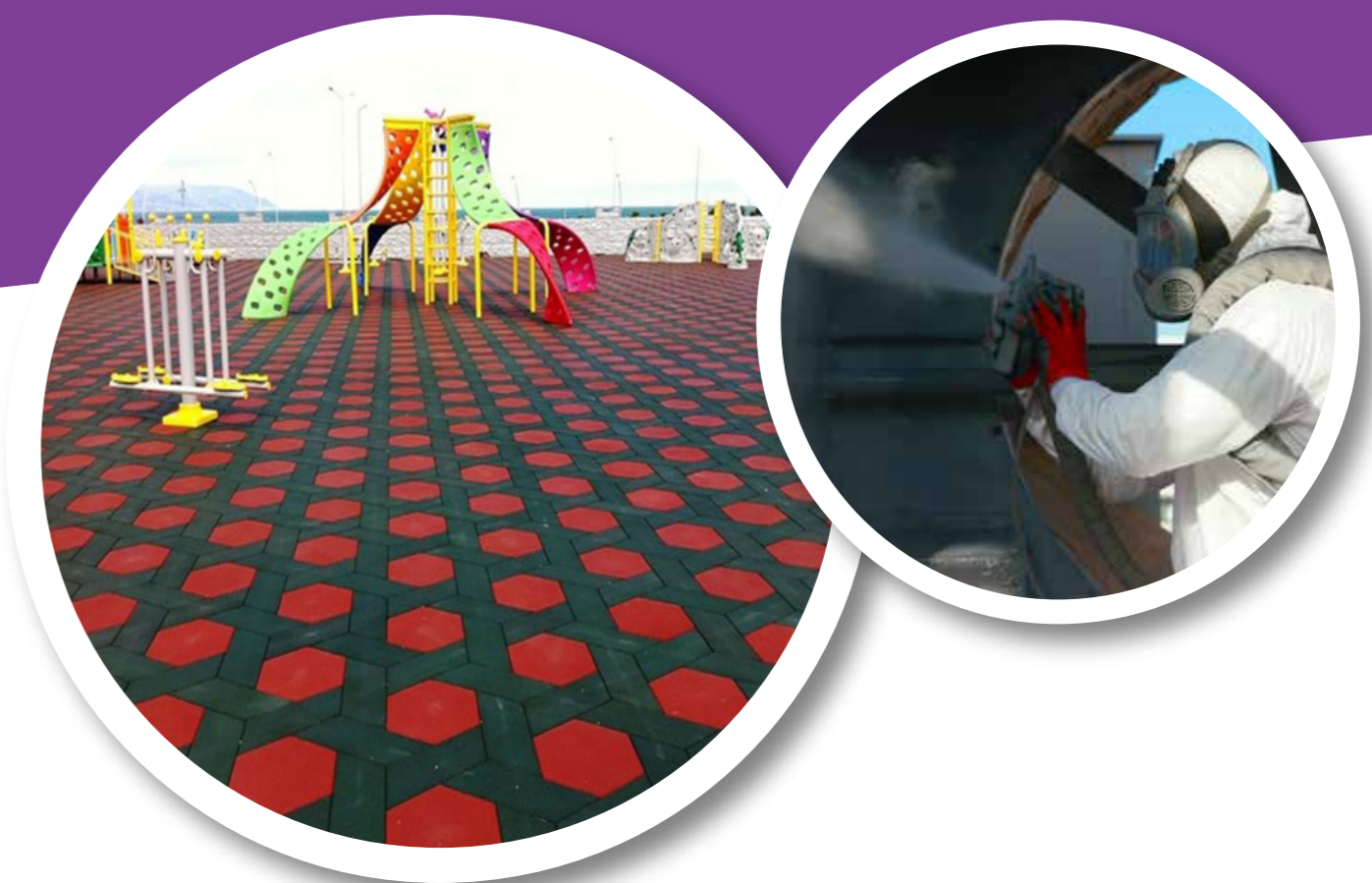
PolexChem polyurethane systems for geothermal pipe insulation are rigid polyurethane foam systems with a high percentage of closed cells. This type of system is designed for providing heat insulation by filling in the casing space around geothermal pipes.

POLEXCHEM EPS/PIR/ROCKWOOL ADHESIVE SYSTEMS

PolexChem adhesive polyurethane systems for rockwool/EPS/PIR provide an effective bonding as they spread over the surface during expansion.

POLEXCHEM WOOD IMITATION

PolexChem wood imitation polyurethane systems are typically used in manufacturing decorative furniture parts. Non-expanding systems are used in open silicone molds while expanding systems are used in closed metal molds.



CasePUR

Special Systems

PolexChem CASE Polyurethane Systems include Pure and Hybrid Polyurea Systems, mono-component or two-component Binders and Adhesives.

POLEXCHEM POLYUREA SYSTEMS

- Pure Polyurea Systems
- Hybrid Polyurea Systems

POLEXCHEM BINDERS

POLEXCHEM PURE AND HYBRID POLYUREA SYSTEMS

PolexChem polyurea systems are coating systems used for waterproofing and mechanical strengthening. There are two types of polyurea systems being pure and hybrid systems. These systems are sprayed with a spraying machine and form a strong and waterproof layer on the applied surface. These fast reacting systems cure rapidly to allow walking on the surface in a few minutes. Besides waterproofing, thanks to their strength and resistance to corrosive chemicals, polyurea systems are also used as a protective layer in armored vehicles or as a coating layer for prevention of saltwater corrosion in vessels such as ships or yachts. They are typically applied in grey color as well as in other colors like blue, green.

POLEXCHEM BINDER SYSTEMS

PolexChem binder systems are mono-component or two-component polyurethane systems used for binding granulated rubber materials to each other on tartan grounds like those in children's park, sports fields, running tracks.





PolyPUR

Polyester Polyols

PolexChem is one of the earliest and biggest manufacturers of saturated polyester resins in Turkey.

There are many polyester polyols of different nature in the product range of PolexChem that fit the needs and demands of customers. In line with the intended purpose, resins of different molecular weights (400-3000 g/mol), different functionalities (linear, branched, network structure) and made of different raw materials are manufactured in the factory.

Polyester polyols of PolexChem are used in many industries such as insulation, elastomer production and in particular in shoe industry.

PolexChem has come to the fore in the shoe production of saturated polyester resins with its more than 20 years of experience, fully automated production system, experienced staff and high capacity.

- Fully automated production system
- Annual polyester polyol production capacity of 25,000 tons
- Product range:
 - Linear Polyester Polyols
 - Branched Polyester Polyols
 - Aliphatic Polyester Polyols
 - Aromatic Polyester Polyols (Insulation Industry)
 - Polyester Polyols with High Butanediol Content (Elastomer Industry)



EVA COMPOUND

HIGH QUALITY POLEXCHEM EVACOMPOUND SERIES

Specially designed for injection molding of EVA compound. Appropriate for injection molding of products like sandals, slippers, shoe soles, midsoles and boots.

Products can be produced in any color, de-molding time, size ratio, hardness and elasticity.

Polexchem EVA series have anti-slip, oil and weather resistance and anti-aging properties. With its softness and comfort, they give you a feeling of rubber but not plastics. Problems like yellowing and breaking are not faced.

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www.polexchem.com

Polex Kimya Sanayi ve Tic.A.Ş.
Akçaburgaz Mahallesi
Osmangazi Caddesi
No:5 Esenyurt
Istanbul /TURKEY

Phone: (+90) 212 886 7969
Fax: (+90) 212 886 7977

 info@polexchem.com