



Overview

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1. Company Introduction

1.1 About PURIN

PURIN is a technology company specialized in the development and production of polyurethane-based specialty chemicals. Managed by a professional team with over 20 years of industry experience, PURIN focuses on high-performance water-based polyurethane systems (PUD) and both solvent-based and solvent-free polyurethane resins. Established in Turkey, the company expanded its operations to Germany in 2024, marking the beginning of a strategic growth phase in the European market.

1.2 Vision and Mission

Our Vision:

We are committed to delivering innovative, eco-friendly, and safe products for every environment that affects human life. We promise future generations a happier and more peaceful life and work tirelessly with and for our partners to realize this vision.

Our Mission:

To focus on innovative and environmentally friendly product designs, increase our product variety in this field, enhance comfort in living environments, and leave a better world to future generations.

Our Motto:

Innovation for people, responsibility for nature.

1.3 Facilities and Locations

Headquarters & Production Facility: Kocaeli, Turkey

→ All production operations are currently carried out in Kocaeli, Turkey.

European Operations: Düsseldorf, Germany (via PURIN GmbH)

→ Marketing and commercial operations

Global Operations: All non-European markets

→ Managed through the Turkish operations center

1.4 Certifications and Compliance

Our company operates in accordance with the following systems:

- ISO 9001:2015 Quality Management System
- ISO 14001:2015 Environmental Management System
- ISO 45001:2018 Occupational Health and Safety Management System

All products are formulated using raw materials compliant with the REACH regulation.

MSDS and Technical Data Sheets are available upon request.

2. Product Groups

PURIN offers a wide range of polyurethane products designed to meet the needs of various industries. All systems are available as standard formulations or custom-made solutions.

2.1 Polyurethane Dispersions (PUD)

PURIN's water-based dispersions stand out with their eco-friendly formulations and high-performance features. Their VOC-free structure makes them suitable for many industrial and commercial applications.

2.1.1 Coating Systems

- Durable, flexible, and scratch-resistant coatings for wood, metal, and plastic surfaces
- Suitable for single- or multi-layer applications
- MFFT range: 5–35°C
- Optional crosslinking systems (e.g., XR 101)

2.1.2 Adhesive Systems

- Suitable for paper, textile, plastic, and leather lamination
- Thermally and chemically resistant with long shelf life
- High bonding strength and heat-activated options

2.1.3 Textile & Functional Applications

- Water-repellent, washable, and breathable coatings
- Modifiable PUD systems for flocking, screen printing, and technical textile processes

2.2 Polyurethane Injection Resins

PURIN's polyurethane injection resins are specially formulated for demanding construction applications such as waterproofing, crack repair, and ground stabilization. Thanks to their reactive structure, these systems cure quickly on-site and offer durable, long-lasting solutions after application.

Key Features:

- Available in 1-component (1K) and 2-component (2K) systems
- Water-reactive, expanding formulations
- Low viscosity for effective penetration into microcracks
- Adjustable reaction time (slow or fast curing options)
- Non-corrosive to reinforcement; high alkali resistance
- Can cure into elastic or rigid form depending on requirements

Application Areas:

- Stopping water ingress in underground structures (tunnels, basements, retaining walls)
- Crack injection and repair in concrete
- Foundation and wall waterproofing
- Emergency sealing against active water flows in dams, channels, culverts, etc.

2.3 Specialty Prepolymer Resins

PURIN offers specialty-formulated polyurethane prepolymer systems for applications requiring high durability, flexibility, and chemical stability. All systems are available in solvent-based or solvent-free versions based on the technical needs of the application.

The prepolymer portfolio includes classic isocyanate-terminated systems as well as advanced structures such as blocked prepolymers and silane-terminated (SPUR) polyurethanes. This diversity ensures both performance and processability across a wide range of applications.

Standard Prepolymer Systems:

Formulated with aromatic or aliphatic isocyanates; moisture or reactive curing; customizable in reactivity and viscosity range.

Blocked Prepolymer Systems:

Isocyanate groups are temporarily blocked and activated only at specific temperature ranges. These systems enable controlled reactivity and extended shelf life—ideal for temperature-controlled coatings and binders.

Silane-Terminated Prepolymer Systems (SPUR):

Free of free isocyanate; eco-friendly systems that cure upon exposure to ambient humidity to form an elastic structure. Offers excellent adhesion, UV resistance, and aging stability—ideal for sealants and elastic adhesives.

Advantages:

- Solvented and solvent-free options available
- Customizable in terms of reactivity, viscosity, cure time, and hardness
- High adhesion strength and elasticity
- Permanent performance on various substrates: concrete, metal, wood, plastic
- Thermal-activation (blocked systems) or high surface tolerance (silane systems)

Application Areas:

- Waterproofing, joint fillers, and adhesive systems in construction
- Industrial coatings and elastomer applications
- Long-lasting sealing systems for automotive, marine, and electronics industries

2.4 Elastomer Resins

PURIN develops polyurethane elastomer resins designed for applications that demand high strength, flexibility, and resistance to environmental stress. Our portfolio ranges from cold-curing systems to UV-resistant aliphatic elastomers. Systems are formulated with both MDI- and TDI-based isocyanate prepolymers for application-specific solutions.

MDI-Based Elastomers:

Chemically stable with low yellowing tendency and broad formulation flexibility. High dimensional stability and low free monomer content make them a safer option for sensitive technical parts.

TDI-Based Elastomers:

Provide superior mechanical performance, flexibility, and impact resistance. Maintain shock-absorbing properties even at higher hardness levels. Preferred for applications requiring high abrasion and deformation resistance.

Cold-Cure Elastomers:

Cure at room temperature, reducing energy consumption. Ideal for on-site repairs and mobile applications such as electrical insulation, gaskets, etc.

Aliphatic Elastomers:

Superior resistance to UV, yellowing, and weather conditions. Offer long-term color stability and aesthetics. Ideal for marine use, automotive exteriors, and facade coatings.

General Properties:

- Hardness range: 50 Shore A – 85 Shore D
- High elongation, tear strength, and impact resistance
- Chemical, thermal, and environmental durability

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- Colorable and visually stable (especially in aliphatic types)
 - Low-VOC, solvent-free options available

Application Areas:

- Molded and cast parts
- Gaskets, bumpers, technical components
- Electrical insulation and coatings
- Marine, automotive, and defense industry applications
- Sports equipment and durable consumer products

3. R&D and Customization Capabilities

PURIN possesses high flexibility and technical capacity to develop customized polyurethane systems tailored to sector-specific needs. Our application-oriented R&D approach goes beyond product development by providing field-adapted solutions to technical challenges encountered by our customers.

3.1 R&D Infrastructure and Approach

- Reaction-controlled production lines and pilot-scale laboratory systems
- Test and analysis equipment capable of simulating customer applications
- Performance-driven resin modifications: viscosity, hardness, MFFT, open time, etc.
- Continuous evaluation of next-generation raw materials and use of sustainable alternatives

3.2 Customized Product Development Process

PURIN delivers tailor-made formulations through the following process:

1. Needs Identification – Application conditions, technical requirements, and performance goals are defined
2. Formulation & Prototype Development – Sample production by the R&D team
3. Application Testing – Lab or on-site testing conducted jointly with the customer
4. Optimization & Stabilization – Revisions made based on performance feedback
5. Commercial Production – Approved formulation produced with agreed packaging and lead time

3.3 Innovation-Focused Approaches

- Eco-friendly resin solutions in water-based and solvent-free systems
- Thermally responsive, controlled-curing systems
- Structural modifications for improved UV, chemical, and mechanical resistance
- Experimental product development for new industries (e.g., functional textiles, bio-based resins)

4. Market Segments and Application Areas

PURIN products are used in a wide range of applications thanks to their customizable structure tailored to the technical needs of various industries. Each product group is optimized to meet the specific conditions of the targeted sector, delivering reliable and long-lasting solutions.

4.1 Target Sectors

Construction and Building

- Waterproofing with polyurethane injection systems
- Single- and dual-component sealants, fillers, and insulation products
- Specialty binders with strong adhesion to concrete, stone, and metal surfaces

Textile and Technical Coatings

- Dispersions optimized for flocking, transfer, and screen-printing applications
- Structural binders for composite textiles and technical fabrics
- Water-repellent, breathable, and washable textile coatings

Packaging and Paper Industry

- Water-based lamination adhesives
- High adhesion and heat resistance for film, paper, and foil combinations
- Recyclable and low-migration formulations

Automotive and Transportation

- Elastomer systems for technical part production (sealing, cushioning, insulation)
- Silane-terminated elastomers for flexible bonding and UV resistance
- Abrasion- and impact-resistant specialty coating systems

Defense and Industrial Manufacturing

- Technical moldings and impact-absorbing parts using polyurethane elastomers
- High-abrasion resistant systems (rollers, gaskets, insulation parts)
- Electrical insulation, encapsulation, and sealing systems

4.2 Application Examples

- Stopping active water ingress in tunnels and foundations with the PURINSEAL series
- Strong bonding in textile lamination using the PURINAQUA series
- High elasticity and surface tolerance in construction adhesives using silane-terminated PURINATE resins
- Durable technical parts in automotive and industrial sectors using PURINELAS polyurethane elastomers

5. Logistics and Supply Process

PURIN serves both domestic and international customers with a fast, reliable, and flexible supply network. Our production and distribution processes are designed around on-time delivery, product integrity, and customer satisfaction.

5.1 Packaging Options

All products are available in different packaging formats depending on application type and customer needs:

- Plastic or metal drums: 20–220 kg
- IBC tanks: 1000 kg
- Special sample and testing packages: 1–5 kg laboratory-scale containers

5.2 Delivery and Lead Times

- Shipments can be made from Turkey and Germany
- Intra-European deliveries are typically completed within 3–7 business days
- Deliveries to other regions vary between 10–30 days depending on the transport method
- For project-based deliveries, fixed scheduling and pre-booking is available

We operate in compliance with all INCOTERMS delivery standards, including: EXW, FCA, DAP, CIF, CPT, etc.

5.3 International Supply and Support Network

- As of 2024, PURIN GmbH in Germany manages logistics and support for the European market
- Deliveries to EU countries are carried out using REACH-compliant raw materials
- Export documentation includes: MSDS, TDS, COA, certificates of origin, and customer-specific paperwork upon request
- Technical support and sample shipments are coordinated from both Germany and Turkey

6. Contact and Technical Support

PURIN is not only a product supplier, but also a long-term solution partner that builds strong technical cooperation with its customers. We offer support throughout the entire process—from pre-sales technical consultation to product selection and post-application follow-up.

6.1 Sales and Technical Support Channels

- Technical consultation: Expert guidance for product selection before application
- Application support: Sample trials, testing protocols, field feedback
- Sales team: Detailed information on product features, pricing, and delivery terms
- Email / Phone access: Fast response via all communication channels

6.2 International Distribution and Local Representation

- PURIN GmbH in Germany provides technical and logistics support to the European market
- Our Turkey-based production facility serves North America, North Africa, the Middle East, and Asia
- Local support is provided via authorized distributors and business partners

6.3 Sample Requests and Collaboration Process

- Sample and technical data requests can be submitted via a short online form
- Samples are shipped from Germany or Turkey within 3–10 business days
- For long-term partnerships, technical meetings, on-site testing, and co-development processes can be planned

6.4 Contact Information

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