

Coatings

Adhesives

Sealants

Elastomers

HIGH-PERFORMANCE SOLUTIONS

Improve Your Product Quality with KIMcase Special Products

kimCASE®
SPECIAL PRODUCTS


kimpur
KIMTEKS POLYURETHANE

Special Products

KIMcase® SPECIAL PRODUCTS

The CASE product line consists of coatings, adhesives, sealants and elastomers. The CASE materials are used in different industries including the construction industry, transportation, textiles, architecture. They improve the performance, operation, resistance and appearance of the products and ensure excellent durability for long-term use.

In the CASE applications, polyurethane and polyurea systems are frequently used for the production of materials with superior performance properties and special uses.

Polyurethane (PU) improves the mechanical properties of the materials as well as the surface hardness in **coatings** and **elastomers** and ensures the materials to be long-lasting and durable. In **adhesives**, **binders** and **sealants**, it improves the properties such as flexibility, adhesion and binding, ensuring stronger adhesion and tighter sealing.

Kimpur has a wide portfolio of prepolymer and systems for various CASE applications, under the **KIMcase**® Special Products Group. **KIMcase**® Special Products, designed for the industries of construction, maintenance and repair, are the result of an innovative technology based on special polymers developed following several applications.

1. COATING SYSTEMS (POLYUREA SYSTEMS)

The coating systems are layers of materials placed on the surface to ensure protection against corrosion and abrasion and to improve surface properties.

KIMcase[®] coating systems that can be applied to surfaces such as metal, concrete or wood consist of pure polyurea and hybrid polyurethane systems.

AREAS OF USAGE

- Roofs, terraces, balconies, etc. (Waterproof applications)
- Industrial floors and parking lots (Anti-slip surfaces)
- Irrigation channels and aqueducts
- Swimming pools, aquariums, water tanks etc.
- Bridge deck (under asphalt) and other architectural examples
- Load-bearing walls and foundations
- Roofs and landscaped fronts
- Energy, recycling, treatment and water storage facilities
- Fish Farms, water treatment plants and petrochemical facilities
- Vehicle, boat priming etc



1.1. PURE POLYUREA SYSTEM

The pure polyurea system is an eco-friendly, two-component surface coating and waterproofing material with an elongation rate of $450 \pm 50\%$. It protects surfaces against abrasion, rust and corrosion and does not contain volatile organic components.

ADVANTAGES

- Ensure 100% waterproofness
- Ensure a monolithic insulation with no joint
- Resistant to harsh weather conditions
- High resistance to various chemical compounds and solvents
- High crack bridging
- High resistance to hydrolysis and aging
- Fast curing (4 sec)
- Quick and easy to apply
- High thermal stability and moisture resistance
- High load-bearing properties
- High adhesion strength on many surfaces

| KIMcase [®] Pure Polyurea System | | Colour Options | Free Density (kg/m ³) | Hardness (ShD) |
|---|---------------|------------------------------------|-----------------------------------|----------------|
| KIMcoat PP 001 | Izokim PP 001 | Gray, light gray and natural color | 1000 | 45±5 |



1.2. HYBRID POLYUREA SYSTEM

The hybrid polyurea system is an eco-friendly, two-component coating and waterproofing material. It protects surfaces against abrasion, rust and corrosion and does not contain volatile organic components. The hybrid polyurea systems are designed by establishing a correlation between the desired performance characteristics in line with costs and customer demands.

ADVANTAGES

- Quick and easy to apply.
- Ensure a monolithic insulation with no joint.
- Good resistance to high temperatures.
- High resistance to hydrolysis and aging.
- High adhesion strength on surfaces.
- Suitable cure time depending on the ambient conditions.
- Cost-effective



| KIMcase [®] Hybrid Polyurea System | | Colour Options | Hardness (ShD) |
|---|---------------|------------------------------------|-------------------|
| KIMcoat HP 001 | İzokim HP 001 | Gray, light gray and natural color | 75±10 |



2. HYBRID POLYUREA SYSTEM

The binding systems can keep surfaces and materials together functionally. Unlike a coating, they contain a binder, keeping multiple sublayers together.

The sealing systems prevent liquids from penetrating through the surfaces, joints, or openings. They are also used in the building and construction industry to prevent dust, heat, and sound flow.

Kimpur has developed **KIMcase**[®] binding systems with excellent adhesion, eco-friendly and recyclable properties, to be used as a binder in different industries, and **KIMcase**[®] sealing systems to prevent passage of liquid on surfaces.

2.1. BINDING SYSTEMS

Kimpur, has developed a variety of single-component binding systems depending on their area of usage.

AREAS OF USAGE

- Walking paths
- Sports field floors
- Playgrounds
- Park and garden covering
- Window and door sills
- Rubber derivative products such as rubber roll carpet, rubber pavement curbs



ADVANTAGES

- 100% solid (Solvent-free)
- VOC-Free
- Ensures proper viscosity and reaction speed for molding operations.
- Superior performance in binding rebounded foams and SBR/EPDM rubber granules.
- Aliphatic and Aromatic varieties for the intended performance.
- Utilizing in hot and cold cure processes.



SBR (Styrene Butadiene) Rubber: It is a synthetic rubber derived from styrene and butadiene. It is suitable for use within the temperature range between -50 °C and +100 °C.

EPDM (Ethylene Propylene Diene Monomer) Rubber: It is a synthetic rubber, consisting of ethylene, propylene and diene monomers. It is suitable for use within the temperature range between -40 °C and +150 °C.

NBR (Nitril) Rubber: It is a synthetic rubber derived from acrylonitrile and butadiene. It is suitable for use within the temperature range between -30 °C and +150 °C.

| Binders | Areas of Usage And System Features | % NCO | Viscosity (25 °C) | Usage Rate (%) | Demolding Time (dk.) | Mold Temperature (°C) |
|-----------------|---|----------|----------------------|-------------------|-------------------------|--------------------------|
| izokim CP 002 | HOT BINDER <ul style="list-style-type: none"> • Rubber products are used on safety surfaces with SBR and EPDM. • They ensure a good performance in terms of strength and durability. | 10,5±0,5 | 3800±500 | 5±1 | 10±2 | 150±20 |
| izokim CP 023 | COLD BINDER <ul style="list-style-type: none"> • Used on rubber mats, molded rubber products and safety surfaces with SBR and EPDM. • They ensure a good performance in terms of strength and durability. | 12±0,5 | 1300±200 | 15±5 | 540±60 | Oda |
| izokim CP 025 | HOT BINDER <ul style="list-style-type: none"> • Used for binding SBR and NBR rubber granules and recycling the scrap foams. • They ensure a good performance in terms of strength and durability. | 10,5±0,5 | 2000±200 | 10±2 | 10±2 | Sıcaklığı |
| izokim CP 027 | HOT BINDER <ul style="list-style-type: none"> • Used for recycling the scrap foams. • They ensure a good performance in terms of strength and durability. | 10,5±0,5 | 1600±300 | 10±2 | 10±2 | 150±20 |
| izokim CP 028 | HOT BINDER <ul style="list-style-type: none"> • Used for recycling the scrap foams. • Good performance in terms of strength and durability. | 15,5±0,5 | 750±50 | 10±2 | 10±2 | 160±20 |
| izokim CP 028-C | HOT BINDER <ul style="list-style-type: none"> • Used for recycling the scrap foams. • They ensure a good performance in terms of strength and durability. | 14,5±0,5 | 650±100 | 10±2 | 10±2 | 160±20 |

| Binders | Areas of Usage And System Features | % NCO | Viscosity (25 °C) | Usage Rate (%) | Demolding Time (dk.) | Mold Temperature (°C) |
|---------------|--|----------|-------------------|----------------|----------------------|-----------------------|
| İzokim CP 029 | HOT BINDER • Used on rubber mats and safety surfaces with SBR and EPDM. • High UV resistance. | 10,5±0,5 | 400±100 | 15±1 | 10±2 | 160±20 |
| İzokim CP 030 | HOT BINDER • Used on rubber mats and safety surfaces with SBR and EPDM. • High UV resistance. | 11,5±0,5 | 1250±200 | 15±1 | 10±2 | 160±20 |

2.2. SEALING SYSTEMS

The **KIMcase**[®] sealing systems, developed by **Kimpur**, are used in the automotive industry, for the production of outer covers that allow the electrical cables to be fixed in the line and prevent passage of liquid

| KIMcase [®] Sealing Systems | | System Features | Free Density (kg/m ³) | Molded Density (kg/m ³) | Hardness (ShD) |
|--------------------------------------|---------------|--|-----------------------------------|-------------------------------------|----------------|
| KIMcase SL 001 | İzokim SL 001 | Water-based, natural, electrical conductivity and low water permeability | 640±40 | 750±50 | 75±5 |
| KIMcase SL 002 | İzokim SL 001 | Water-based Black-colored gasket system | 300±10 | - | 35±5 |



3. ELASTOMER SYSTEMS

Elastomers are rubbery materials that are composed of long-chain molecules or polymers and can return to their original shape after stretching.

KIMcase[®] elastomer systems are used in different fields including two-component molding elastomers, reaction injection molding and PU gel types.

3.1. TWO-COMPONENT MOLDING ELASTOMERS

Two-component polyurethane systems that are injected with both low-pressure and high-pressure machines in closed molds.

AREAS OF USAGE

- Filled mats
- Industrial roller coatings
- Hydraulic seals
- Elevator chock
- Industrial filters
- Floating cells
- Textile roller
- Handcart Wheel



ADVANTAGES

- Can be applied with filling.
- Ensures a smooth skin appearance.
- Acts like plastics and elastics.
- Can be designed with different density, hardness and demolding times.
- Vibration and shock absorption.
- Thanks to its thermoset structure, it shows high resistance to changing ambient conditions.
- Dimensional stability thanks to its macromolecular structure.

| KIMcase [®] Two-Component Moulding Elastomers | | AREAS OF USAGE | Free Density (kg/m ³) | Molded Density (kg/m ³) | Hardness (ShD) |
|--|---------------|----------------------------|-----------------------------------|-------------------------------------|----------------|
| KIMcase CE 001 | İzokim CE 002 | Filled Mat System | 975±75 | 1200±100 | 70±5 |
| KIMcase CE 001-B | İzokim CE 002 | Filled Mat System | 975±75 | 1200±100 | 70±5 |
| KIMcase CE 003 | İzokim CE 005 | Elevator Chock | 285±5 | 530 | 80±5 |
| İzokim CE 004 | 1.4 Bütandiol | Industrial Roller Coatings | - | - | 84±2 |
| KIMcase CE 005 | İzokim CE 002 | Handcart Wheel | 60 ± 5 | 400 ± 500 | 60±5 |
| KIMcase CE 004 | İzokim CE 002 | Handcart Wheel | 75 ± 5 | 300 ± 400 | 75±5 |

ADVANTAGES

- Offers various density alternatives.
- Provides explosion resistance due to high wear resistance, ensuring long-lasting use.
- Resistant to high weights.
- It provides ease of use through its lightweight feature.
- It provides a smooth skin texture thanks to its microcellular structure.
- Scentless.



3.2. RIM (REACTION INJECTION MOLDING) SYSTEM

It is a two-component polyurethane RIM system for automotive and composite industries, injected with low pressure in closed molds.

AREAS OF USAGE

- Automotive outer panel/bumper parts
- Industrial device cases
- Reinforced composite production

ADVANTAGES

- Allows obtaining high-density and hard products.
- High shock resistance.

| KIMcase [®] RIM System | | Free Density (kg/m ³) | Molded Density (kg/m ³) | Hardness (ShD) |
|---------------------------------|---------------|--------------------------------------|--|-------------------|
| KIMcase RM 001 | İzokim PP 001 | 455±20 | 1000±100 | 50±5 |



3.3. POLYURETHANE GEL

Kimpur has developed a polyurethane gel system with various hardness and elongation rates.

AREAS OF USAGE

- Viscoelastic (memory foam) pillow surfaces
- Shock absorbing pads
- Bicycle saddles
- Wrist pads for keyboards and mouse pads



ADVANTAGES

- Acts like plastics and elastics.
- High comfort thanks to its adjustable hardness.
- High durability.

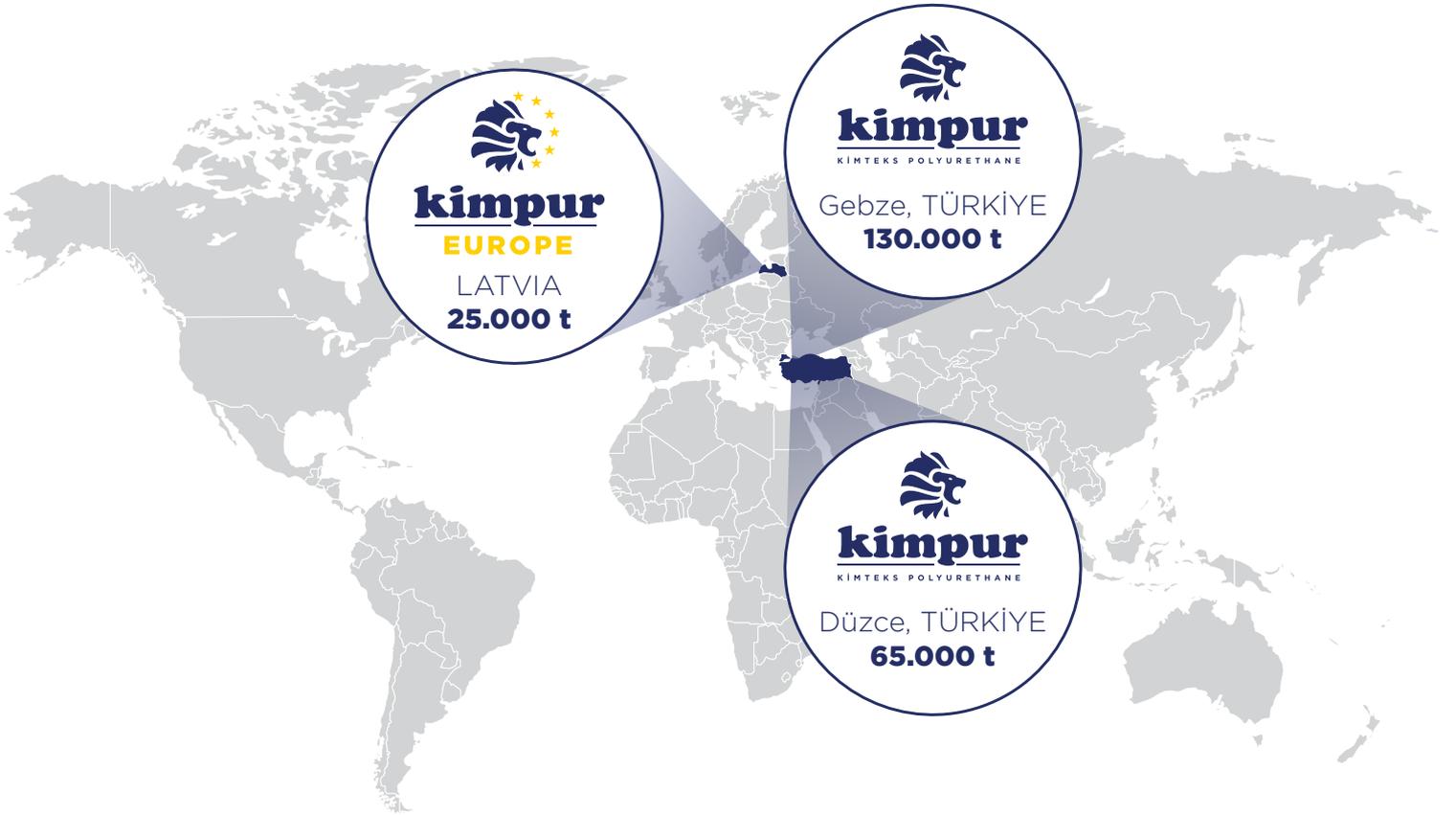
| KIMcase [®] RIM System | | Colour Options | Free Density (kg/m ³) | Molded Density (kg/m ³) | Hardness (ShD) |
|---------------------------------|---------------|------------------------|--------------------------------------|--|-------------------|
| KIMcase GL 001 | izokim GL 001 | Natural and blue color | 1000 ± 75 | 1000 ± 100 | 25 ± 2 |

Ürünler hakkında daha detaylı bilgi, TDS ve MSDS dökümanları için satış ofisimiz ile irtibata geçebilirsiniz.

UNCOMMON SOLUTIONS IN EUROPE

Kimpur is the polyurethane system house with the largest capacity in the region, with a production capacity exceeding 200,000 tons. It leads the sector by exporting to more than 50 countries on 5 continents. Polyurethane systems produced; It is used in different sectors such as shoes, automotive, furniture, heating and cooling, insulation-construction and defense industry.

GLOBALDE KİMPUR



United Nations
Global Compact



Kimpur Corporate Promotional Film
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KİMTEKS POLİÜRETAN SANAYİ VE TİCARET A.Ş.



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LEGAL INFORMATION

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