# SUSTAINABLE SOLUTIONS

## Driving Comfort with KIMflex Integral Systems

kimpur
KİMTEKS POLYURETHANE

kim FLEX®
FLEXIBLE FOAM SYSTEMS
KIMflex INTEGRAL SYSTEMS

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## KIMflex INTEGRAL SYSTEMS

The social and economic activities in rapid growing cities have been increased due to the increasing population of the world, thus causing the transportation demands to be risen constantly.

In recent years, in order to adapt the transportation to the principles of sustainable development, the performance, safety and driving comfort of vehicles as well as their environmental impacts, social responsibility requirements and contributions to the economic development have been taken in consideration.

Polyurethane systems aim to reduce energy usage and therefore emission, by ensuring weight loss in vehicles with their lightness feature. The PU also enhances material durability and corrosion resistance thanks to its high--performance coating. In addition, it has been preferred by the automotive industry due to its many advantages such as lightness, durability, thermal and electrical insulation, design, and ease of production.

The versatile use of polyurethane also reduces the production costs, causing the automotive industry to be competitive in the global market. Thus, it contributes to economic development.

Accordingly, **Kimpur** has developed KIMflex Integral Systems to support sustainability in transportation to ensure comfort and safe driving.

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**FLEXIBLE FOAM SYSTEMS**

## APPLICATION AREAS:

- Steering wheel
- Mat
- Armrest
- Bicycle seat
- Wire harness
- Dashboard
- Mudguard
- Bumper

## ADVANTAGES:

- Flexibility
- Fast curing
- Smooth skin
- Suitable skin thickness
- Regular cell structure
- Short demolding times
- Different hardness alternatives
- Different demolding times alternatives
- Wide (molded) density range

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## STEERING WHEEL

**Kimpur** has developed **KIMflex** FI integral-skin foam systems for steering wheel production. Our systems ensure a long-lasting usage with abrasion resistance and provide a comfortable driving experience with its flexible structure and smooth-looking skin. In addition, they ensure production efficiency with short demolding time and lightweight advantages.

| KIMflex Integral Systems | | System Features | Mixing Ratio (Polymix/Iso) | Free Rise Density (kg/m³) | Density (kg/m³) | Hardness (sh A) | Molding Time (sec) |
|---|---|---|---|---|---|---|---|
| KIMflex FI 032 | Izokim FI 002 | Water-based, natural | 100/48±2 | 210±10 | 360 | 60 | 180 |
| KIMflex FI 034-B | Izokim FC 010 | Water and solvent-based, black colored | 100/41±2 | 160±10 | 350 | 75 | 300 |

## WIRE HARNESS

Electrical wires are a combination of one or more individually insulated electrical conductors held together by a complete cover. The outer cover of the wires is mostly made of polyurethane materials.

In regard to the automotive industry, **Kimpur** has developed a water-based **KIMflex** FI integral-skin foam system for the production of the outer cover of electrical wires. These systems stand out with their antistatic and waterproof properties.

| KIMflex Integral Systems | | System Features | Mixing Ratio (Polymix/Iso) | Free Rise Density (kg/m³) | Density (kg/m³) | Hardness (sh A) | Molding Time (sec) |
|---|---|---|---|---|---|---|---|
| KIMflex FI 035 | Izokim FI 002 | Water-based, natural, low electrical conductivity and nonwater permeability | 100/37 | 640±40 | 750 | 76 | 180 |

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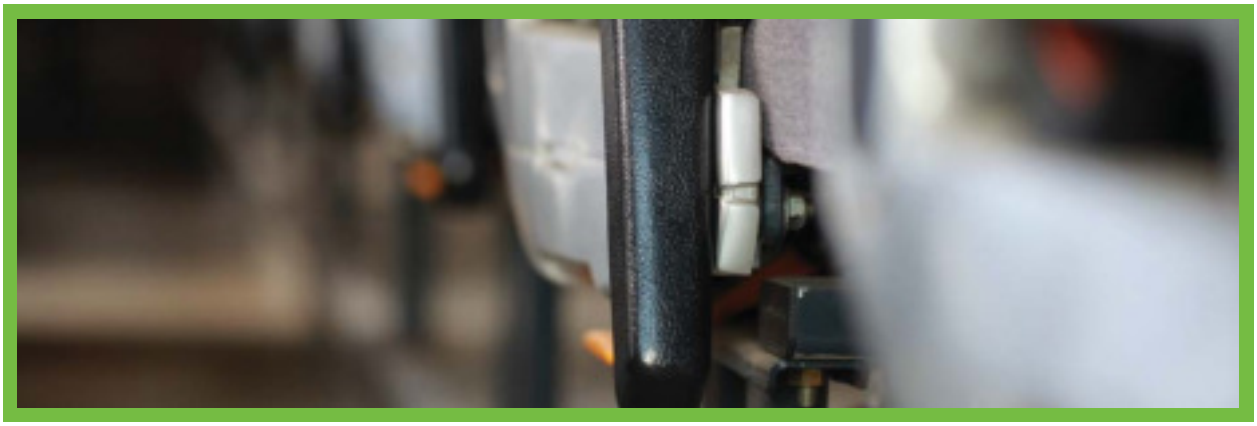
# ARMREST

A pleasant ride and traveling experience depends on the use of quality and comfortable products in the vehicle. Armrest is one of the products that ensure these features.

**Kimpur** has developed **KIMflex** FI integral-skin foam systems for the production of armrest with abrasion resistance, flexible, smooth looking skin. Our systems ensure production efficiency with short demolding time and light-weight advantages.

| KIMflex Integral Systems | | System Features | Mixture Rate (Polymix / Iso) | Free Rise Density (kg/m³) | Density (kg/m³) | Hardness (sh A) | Mold Removal Time (sec) |
|---|---|---|---|---|---|---|---|
| KIMflex FI 005 | Izokim FI 002 | Water and solvent-based, black colored | 100/50 | 125±10 | 230 | 48 | 240 |
| KIMflex FI 019 | Izokim FI 002 | Water and solvent-based, black colored | 100/52 | 190±10 | 350 | 60 | 240 |
| KIMflex FI 022-B | Izokim FC 010 | Water and solvent-based, black colored | 100/43 | 115±5 | 330 | 40 | 300 |
| KIMflex FI 022-N | Izokim FC 010 | Water and solvent-based, natural colored | 100/43 | 115±5 | 330 | 40 | 300 |
| KIMflex FI 033 | Izokim FC 010 | Water and solvent-based, dark black | 100/43 | 110±10 | 330 | 40 | 300 |

***The KIMflex FI 022-N system is also used in the furniture industry in the production of task chair.*



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# MAT, CONSOLE, BUMPER, SEAT AND MUDGUARD

Mat, console, bumper and mudguard are some of the main accessories of the vehicles. **KIMflex** FI integral-skin foam systems are also used in production of these accessories. Our system, which has high abrasion resistance, is easy to work within large molds and allows obtaining a flexible, smooth and thick skin product.

| KIMflex Integral Systems | | System Features | Mixing Ratio (Polimyx / Iso) | Free Rise Density (kg/m³) | Density (kg/m³) | Hardness (sh A) | Mold Removal Time (sec) |
|---|---|---|---|---|---|---|---|
| KIMflex FI 034-B | Izokim FC 010 | Water and solvent-based, dark black | 100/41 ± 2 | 160±10 | 350 | 75 | 300 ( For small molds )<br><br>900 ( For big molds ) |

You can choose a suitable system from our portfolio, which is ready-to-use, tested and validated by many customers, having been used in the market for decades, or request solutions that we will develop specifically for you; in either case, you can focus on your production and trust us with the chemistry and the business.

For more detailed information about the products, please contact our sales office.

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