

# HIGH ENERGY SAVING WITH EXCELLENT INSULATION



**KIMPUR**

**Refrigerator Systems**

## KiMcool® - KiMrigid® REFRIGERATOR SYSTEMS

With the increased environmental awareness and importance of energy consumption around the world, energy saving products stand out in the white appliance industry, like many more industries. These products provide less energy consumption and long-term cost-efficiency without affecting the level of service and comfort. The demand for higher energy saving white appliances has increased considerably in the recent years.

Refrigerators, as electrical home appliances working continuously, have been proven to consume a higher rate of energy than other white goods. For this reason, the high energy-efficient refrigerators are critical for energy saving and cost-efficiency.

One of the most effective ways to reduce energy consumption in the refrigerator is to improve thermal insulation. When an insulation material with higher thermal resistance is used, the inside temperature reaches the set temperature in a shorter time and the amount of power drawn by the compressor from the circuit is reduced. Thus, a refrigerator insulated with a low thermal conductivity material maintains the set temperature more efficiently, leading to less energy consumption.

Rigid polyurethane foams maintain the inside temperature of the refrigerator, and thus reduce the consumed energy and provide high efficiency; thanks to their insulation capability due to their low thermal conductivity. Rigid foams also increase the storage volume by allowing great reduction in the wall thickness of the refrigeration equipment.

**Kimpur** has developed **KiMcool®** and **KiMrigid®** Refrigerator Systems that comply with environmental and energy standards, and help foods remain unspoiled for a long time and extend their shelf life, with their excellent insulation properties.

## AREAS OF USAGE

- Domestic refrigerators and freezers
- Commercial refrigeration equipment



## ADVANTAGES

- Energy saving with excellent thermal insulation
- Low demolding times with fast curing properties
- High production efficiency
- Excellent dimensional stability
- Excellent foam surface texture
- High mechanical properties

### KIMcool® REFRIGERATOR SYSTEMS

#### 3K Systems - Blowing agent addition is mandatory

| KIMcool® Refrigerator Systems                                                                       | Blowing Agent | System Properties                                                                             | Gel Time (sec) * | Certificate |
|-----------------------------------------------------------------------------------------------------|---------------|-----------------------------------------------------------------------------------------------|------------------|-------------|
| KIMcool RD 052                                                                                      | cp70/cp95     | High demolding performance for 60 cm and below wide refrigerators                             | 52               | REACH       |
| KIMcool RD 053                                                                                      | cp70/cp95     | Superior compatibility with both cp70 and cp95 with high flowability                          | 85               | REACH       |
| KIMcool RD 054                                                                                      | cp70/cp95     | High demolding performance for 70 cm and below wide refrigerators                             | 64               | REACH       |
| KIMcool RD 069                                                                                      | cp70/cp95     | Low thermal conductivity designed for side by side or multiple door refrigerators             | 68               |             |
| KIMcool RD 070                                                                                      | cp70/cp95     | Low thermal conductivity designed for 70 cm and below wide refrigerators                      | 65               |             |
| KIMcool RD 082                                                                                      | cp70/cp95     | Superior flowability designed for high VIP (Vacuum Insulation Panels) contained refrigerators | 100              |             |
| KIMcool RD 083                                                                                      | cp70          | High compatibility with cp70 for better thermal conductivity and compressive strength         | 64               |             |
|  KIMcool RD 064H | HFO           | Ultra low thermal conductivity designed for new energy class refrigerators                    | 65               |             |
| KIMcool RD 088H                                                                                     | HFO           | Superior flowability designed for high VIP (Vacuum Insulation Panels) contained Refrigerators | 100              |             |
| KIMcool Bio RD 001                                                                                  | cp70/cp95     | High bio-content for low carbon emission                                                      | 64               |             |

\*Data refer to laboratory tests made with components at 20°C, hand-mixed with mechanical stirrer at 3000 rpm.

**Up to %10** Energy Savings *(It varies depending on the refrigerator's capacity and insulation thickness.)*

Eco-Friendly Blowing Agents



## KIMrigid® REFRIGERATOR SYSTEMS

### 2K Systems - Blowing agent included in polyol

| KIMrigid® Refrigerator Systems | Blowing Agent | System Properties                                                                                               | Gel Time (sec) * |
|--------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------|------------------|
| KIMrigid RD 057                | Water based   | Two-component system designed for fridges and refrigerator with enviromentally friendly blowing agents          | 92               |
| KIMrigid RD 088                | cp95          | Two-component system designed for fridges and refrigerator with low thermal conductivity                        | 85               |
| KIMrigid RD 091                | HFC           | Two-component system designed for discontinue panels and freezers with low thermal conductivity                 | 85               |
| KIMrigid RD 096                | Pentane       | Two-component system designed for refrigerator, fridge and cold storage panels with low thermal conductivity    | 100              |
| KIMrigid RD 110                | cp95          | Two-component system designed for fridges and refrigerator with low thermal conductivity and better flowability | 86               |
| KIMrigid RD 117H               | HFO/cp95      | Two-component system designed for fridges and refrigerator with very low thermal conductivity                   | 125              |

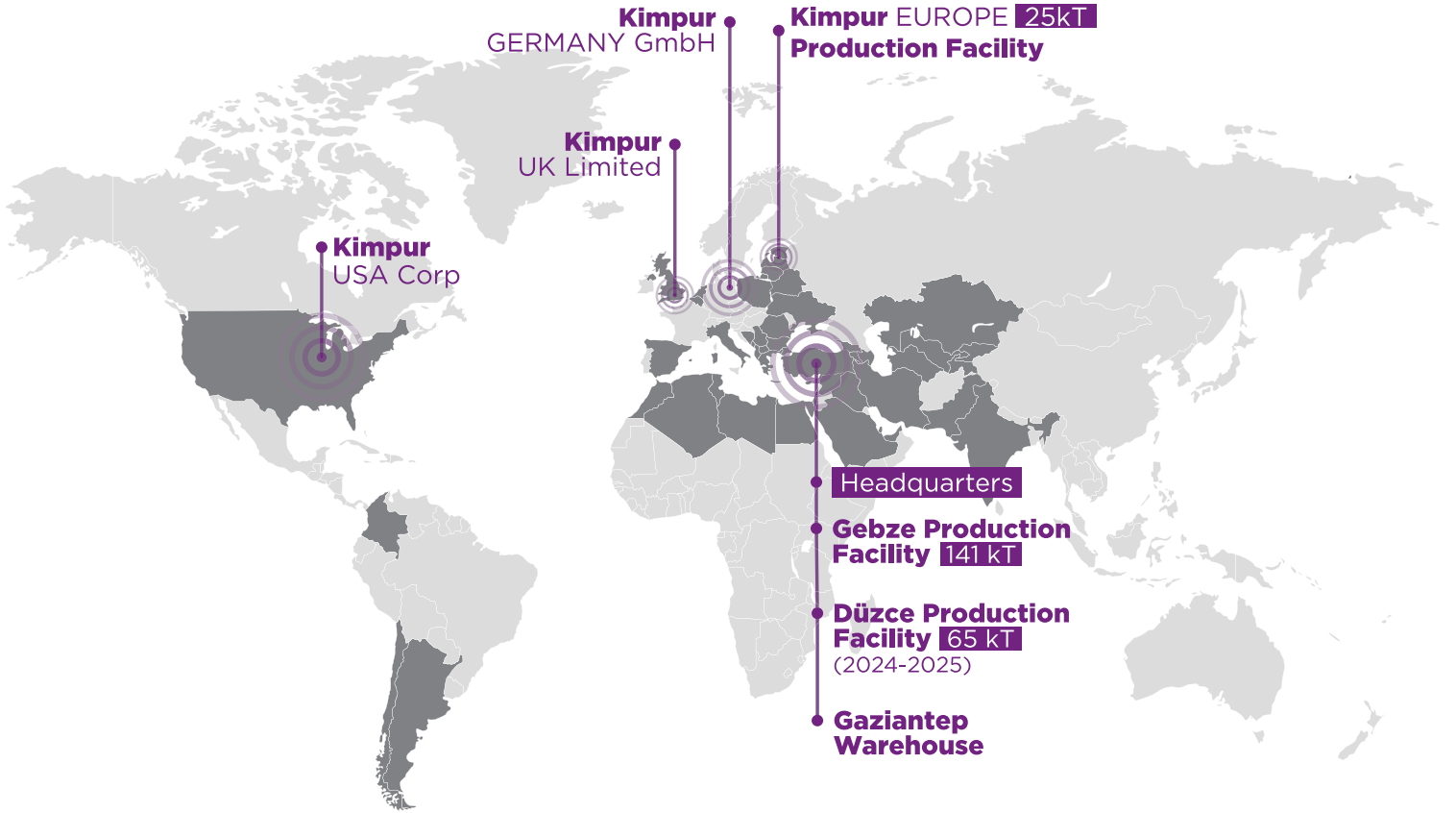
\*Data refer to laboratory tests made with components at 20°C, hand-mixed with mechanical stirrer at 3000 rpm.

You can contact our sales office for further detailed information about the products, TDS and MSDS documents.

# TÜRKİYE'S LARGEST POLYURETHANE SYSTEM HOUSE

**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.

## GLOBAL ACTIVITIES



United Nations  
Global Compact



Responsible Care®  
OUR COMMITMENT TO SUSTAINABILITY

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

### HEAD OFFICE:

İnkılap Mah. Dr. Adnan Büyükdeniz Cad.  
No: 13, B Blok, Kat: 2, İç Kapı No: 6  
34768 Ümraniye İstanbul TÜRKİYE  
Phone : +90 212 809 15 50  
Fax : +90 212 809 15 49

### GEBZE PRODUCTION FACILITY:

Gebze Plastikçiler Organize  
San. Bölgesi 7. Cadde No:43  
41400 Gebze Kocaeli TÜRKİYE  
Phone : +90 262 751 44 71  
Fax : +90 262 751 02 57

### DÜZCE PRODUCTION FACILITY:

OSB, Yakabaşı Mevki, 1. Cadde No:12,  
81850 Gümüşova Düzce TÜRKİYE

### KİMPUR EUROPE PRODUCTION FACILITY:

Brīvības iela 103, Liepāja,  
LV-3401, LATVIA



# KİMPUR



For more information  
[uncommonsolutions@kimpur.com](mailto:uncommonsolutions@kimpur.com)

     / KimpurGlobal

[www.kimpur.com](http://www.kimpur.com)

## LEGAL INFORMATION

At Kimpur, we strive to provide you with the highest quality polyurethane systems, backed by our expertise and dedication to innovation. The information provided in this brochure is a reflection of our expertise and knowledge. However, we highly recommend for users to conduct their own thorough assessments and tests to ensure the suitability and optimal performance of our products for their intended applications. While we strive to provide accurate and reliable information, Kimpur does not assume any liability or offer any warranty, whether expressed or implied, regarding the properties, performance, or fitness for a particular purpose of our products. Descriptions, specifications, and other details provided herein are subject to change without prior notice and should not be considered as binding contractual guarantees. As the recipient of our products, our customers assume full responsibility for compliance with all applicable laws, regulations, and intellectual property rights. We highly recommend obtaining comprehensive information on product toxicity, adhering to proper handling procedures, and ensuring compliance with safety and environmental standards. At Kimpur, we value our partnership with you and strive to provide exceptional support. However, it is important to emphasize that the application, use, and processing of our products are ultimately the sole responsibility of the user. Please note that the safety data provided in this brochure is for informational purposes only and does not constitute a legally binding Material Safety Data Sheet (MSDS). To obtain the relevant MSDS, kindly request it from your supplier or contact us directly at [uncommonsolutions@kimpur.com](mailto:uncommonsolutions@kimpur.com). Our team is ready to assist you with any inquiries or specific safety information you may need.

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