



# FLOUR IMPROVERS

*Diffirent Solutions, Permanent Superiority*

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# about us.

Depart is a global brand that provides spare parts and innovative solutions for the milling and pasta industries, and operates in the fields of telescopic belt conveyor systems, color sorters, rice processing machines, primary and end-of-line packaging, liquid filling, and industrial mixing systems for both food and non-food sectors. Thanks to its extensive sales and service network, the company currently exports to more than 80 countries and serves over 900 customers.

At Depart, our goal is not only to provide equipment and system solutions but also to offer value-added innovations that enhance product quality. In line with this vision, we have established a strategic partnership with Erke, a company specialized in flour improvers, to contribute to the industry under the Depart flour improvers by Erke brand.

Founded in 2018 on core values such as energy, faith, and commitment, Erke has quickly established a strong presence in the sector. With a nature-inspired approach, a sustainable production philosophy, and an innovative vision, Erke develops solutions that add value throughout the process from wheat to bread. Since the opening of its new production facility in 2022, it has been offering standout products, especially in the area of flour additives.

ADK MATE, brand of Erke, aims to offer "miraculous touches"—unique solutions designed to address the specific needs of the industry and complete what is missing. This strong product portfolio, combined with Depart's international experience and broad customer base, delivers high-quality and reliable solutions to the flour industry.

We at Depart are proud to be the exclusive global sales and marketing representative of flour improvers developed by Erke. By combining Erke's high-quality standards with Depart's global experience and extensive service network, we provide our customers with reliable, effective, and sustainable solutions. This collaboration is a significant step that strengthens our vision of adding value to the flour industry.



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# WHY FLOUR IMPROVERS?

The Importance of Dough Improvers in the Industry

Dough improvers play a critical role in the baking, pastry, and broader food industry. Here are the key reasons why:

## 1. Standardizing Flour Quality

Flour obtained from wheat harvests varies depending on region, climate, and harvest period. Dough improvers help balance these differences by:

- Enhancing dough workability,
- Ensuring consistent final product quality.

## 2. Improving Dough Properties

With dough improvers:

- Dough's water absorption capacity is increased,
- Elasticity and gas retention properties are improved,
- The fermentation process is better controlled.

This results in better dough rise and a softer texture in the final product.

## 3. Enhancing Final Product Quality

Dough improvers contribute to:

- Improved crumb structure,
- Better color,
- Enhanced taste and aroma,
- Extended shelf life.

This consistency is particularly crucial for large bakery chains.

## 4. Cost and Efficiency Benefits

High-quality improvers enable the desired quality even with lower-grade flour, leading to:

- Savings on raw materials,
- Reduced production waste,
- Lower overall costs.

## 5. Regulatory and Functional Requirements

In some countries, fortifying flour with vitamins and minerals (e.g., iron, folic acid) is mandatory. Such enrichment processes are facilitated by dough improvers.

In summary, dough improvers are strategic components that directly impact not only the quality of flour but also the quality, sustainability, and economic value of the final product. In industrial-scale production, using flour without improvers poses significant commercial risks.

# WORLD BREADS

- **TURKISH BREAD**
- **FRENCH BAGUETTE**
- **ENGLISH TOAST BREAD**
- **UZBEK LEPYOSHKA BREAD**
- **RUSSIAN BATON BREAD**
- **MIDDLE EASTERN PITA BREAD**
- **IRANIAN BARBARI BREAD**
- **PAKISTANI CHAPATI BREAD**
- **INDIAN PAROTTA BREAD**
- **LEBANESE BREAD**
- **CIABATTA BREAD**
- **IRAQI HAJERI BREAD**



# WORLD BREADS

Product Group	Product Name	Usage Rate
<b>TURKISH BREAD</b>	ADK MATE 600 ADK MATE 605 ADK MATE 610 ADK MATE 800 ADK MATE 805 ADK MATE 810 ADK MATE 615 ADK MATE 615 EGE ADK MATE 615 KARADENİZ ADK MATE 615 İÇ AND ADK MATE 615 MARMARA ADK MATE 615 GDOĞU ADK MATE 615 AKDENİZ	10-30 gr / 100 kg
<b>FRENCH BAGUETTE</b>	ADK MATE 100 ADK MATE 100 BGT	10-30 gr / 100 kg
<b>ENGLISH TOAST BREAD</b>	ADK MATE 120	10-30 gr / 100 kg
<b>UZBEK LEPYOSHKA BREAD</b>	ADK MATE 625	10-30 gr / 100 kg
<b>RUSSIAN BATON BREAD</b>	ADK MATE 630	10-30 gr / 100 kg
<b>CIABATTA BREAD</b>	ADK MATE 125 C	10-30 gr / 100 kg
<b>LEBANESE BREAD</b>	ADK MATE 125 ALL PURPOSE	10-30 gr / 100 kg
<b>MIDDLE EASTERN PITA BREAD</b>	ADK MATE 125 PITA	10-30 gr / 100 kg
<b>IRANIAN BARBARI BREAD</b>	ADK MATE 125 B	10-30 gr / 100 kg
<b>INDIAN PAROTTA BREAD</b>	ADK MATE 125 P	10-30 gr / 100 kg
<b>IRAQI HAJERI BREAD</b>	ADK MATE 125 ALL PURPOSE	10-30 gr / 100 kg

# TURKISH BREAD

- ADK MATE 600
- ADK MATE 605
- ADK MATE 610
- ADK MATE 800
- ADK MATE 805
- ADK MATE 810
- ADK MATE 615
- ADK MATE 615 EGE
- ADK MATE 615 KARADENİZ
- ADK MATE 615 İÇ AND
- ADK MATE 615 MARMARA
- ADK MATE 615 GDOĞU
- ADK MATE 615 AKDENİZ

**USAGE AREA** : Traditional Turkish Bread Flour Production Processes  
Dosage:  
10-30 g / 100 kg

**BENEFITS** : For flours with varying quality values in the production process of traditional Turkish bread:

- Ensures controlled dough formation during the kneading stage.
- Provides dough strength during the period leading up to fermentation.
- Supports dough stability during fermentation development.
- Improves volume, color, crust, and freshness characteristics in the final product



# FRENCH BAGUETTE

- **ADK MATE 100**
- **ADK MATE 100 BGT**

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**USAGE AREA** : Used in flour exports to ensure product standardization and to increase the tolerance of products against adverse weather conditions during the operational period.  
Dosage:  
10-30 g / 100 kg

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**BENEFITS** :

- Ensures controlled dough formation during the kneading stage.
- Provides dough strength during the period leading up to fermentation.
- Facilitates easy-to-work dough, resulting in a uniform and fine crumb structure in the bread.
- Delivers a crispy crust, delayed staling, and good volume.

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# ENGLISH TOAST BREAD

## • ADK MATE 120

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**USAGE AREA** : Used in flour exports to ensure product standardization and to increase the tolerance of products against adverse weather conditions during the operational period.

Dosage:  
10-30 g / 100 kg

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**BENEFITS** :

- Provides a dough structure with high elasticity.
- Ensures a regular pore distribution within the dough structure.
- Provides standard color distribution during the baking phase.
- Prevents inward pulling from the edges of the mold.
- Maintains freshness and softness for a long time.

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# LEPYOSHKA BREAD

## • ADK MATE 625

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**USAGE AREA** : In the production processes of Tandoor Bread and Uzbek Lepočka Flour,  
Dosage:  
10-30 g / 100 kg is used.

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**BENEFITS** : In the Tandoor Bread production process:

- Provides dough strength.
- Prevents the dough from flowing in the tandoor, thus preventing it from falling.
- Prevents shrinkage defects in the final product.
- Preserves its unique taste and aroma in Tandoor bread.

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# OPENABLE PRODUCTS

## I. PITA & LAVASH

- ADK MATE 905
- ADK MATE 910 L
- ADK MATE 910
- ADK MATE 910 PL
- ADK MATE 910 P

**USAGE AREA** : In the production processes of Pide and Lavaş.  
Dosage:  
10.0-15.0 g / 100 kg

**BENEFITS** : The most challenging type of bread to develop is expandable bread. There is a high cultural diversity within this bread group, and the desired quality criteria vary for each product type.  
The ADK MATE 905 and ADK MATE 910 product series provide excellent results for our partners by ensuring features such as dough elasticity, crust color, inner softness, crisp structure, and maintaining freshness for 2-3 days.



# OPENABLE PRODUCTS

## II. OPENABLE DOUGH

- **ADK MATE 915 (BAKLAVALIK)**
- **ADK MATE 915 YFK**
- **ADK MATE 920 BKV**
- **ADK MATE 915 M-YFK (MACHINE)**
- **ADK MATE 920 YFK**

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**USAGE AREA** : In the production processes of Yufka flour.  
Dosage:  
5,0-10,0 gr / 100 kg

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- BENEFITS** :
- Provides high elasticity to the dough.
  - Does not tear during hand rolling.
  - Suitable for use in all industrial yufka machines.
  - No tearing or breaking occurs throughout the production line.
  - Easy to stretch, can be rolled out to the desired thinness.
  - Does not create edges, ensures homogeneous stretching, and does not stick.
  - High water retention capacity during dough hydration.
  - No spoilage occurs in recycled dough.
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# TRADITIONAL SOLUTIONS

## I. RAMADAN PITA

### • ADK MATE 830 RP

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**USAGE AREA** : In the production processes of Ramazan Pide flour.  
Dosage:  
10-30 gr / 100 kg

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**BENEFITS** : In the production process of Ramazan Pide:

- Improves the water retention capacity of the dough.
- Facilitates easy stretching and rolling of the dough.
- Maintains the dough's elasticity (bite retention).
- Enhances the final product's volume, color, and freshness characteristics.

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# TRADITIONAL SOLUTIONS

## II. TRABZON BREAD

### • ADK MATE 815 TRBZ

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**USAGE AREA** : In the production processes of Trabzon Vakfikebir bread flour.  
Dosage:  
10-30 gr / 100 kg

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**BENEFITS** : Trabzon Taş Fırın Ekmeği, its unique baking process, flavor, and freshness make it one of a kind, not only in Turkey but worldwide.  
In the production process of Trabzon Vakfikebir Bread:

- Ensures controlled formation during the dough kneading phase.
- Provides dough strength and stability during long fermentation periods.
- Facilitates easy stretching of the dough.
- Results in a final product with good volume, shiny color, and desired crust structure.

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# TRADITIONAL SOLUTIONS

## III. KAYSERİ PITA

### • ADK MATE 620

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**USAGE AREA** : In the production processes of Kayseri Pide flour.  
Dosage:  
10-30 gr / 100 kg

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**BENEFITS** :

- In the production process of Kayseri Pidesi:
  - Improves the water retention capacity of the dough.
  - Optimizes fermentation development, supporting fermentation stability and strength.
  - Provides easy stretchability and elasticity in the dough.
  - Enhances the final product's volume, color, and freshness characteristics.

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# VARIETY

## • ADK MATE 820

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**USAGE AREA** : In the production processes of variety and pastry flour.  
Dosage:  
10-30 gr / 100 kg

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**BENEFITS** :

- In the production process of variety and pastry products:
- Increases the dough's kneading and elasticity tolerance.
- Provides fermentation strength and supports dough stability.
- Enhances the structure to accommodate fat content in the dough.
- Tolerates error margins in final products, improving volume, brightness, and freshness characteristics.

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# IMPORTANCE OF PASTA IMPROVERS

## • Importance of Pasta Improver: ADK MATE 130

In today's pasta production, the perception of quality is not limited to appearance; it is shaped by various parameters such as consumer experience, post-cooking stickiness, mouthfeel, and color consistency. To meet these new quality expectations, we add value to the production chain with our specially developed functional additive for pasta flour manufacturers, ADK Mate 130.

ADK Mate 130 provides excellent results in both traditional durum wheat-based pasta flours and bread wheat-based formulations preferred due to rising wheat costs and supply issues in recent years. It is an effective solution to maintain the desired pasta quality even in environments where durum wheat is limited.

### Added Value of ADK Mate 130 for Pasta Flours

- Textural Improvement:
  - Supports the gluten matrix to create a more compact, elastic, and homogeneous dough structure. This reduces the tendency for the pasta to break during drying and results in a firmer, "al dente" texture post-cooking.
- Color Stabilization:
  - Helps preserve the natural yellow pigmentation (carotenoids) of durum wheat. Even in recipes using bread wheat, it imparts a visually rich and natural yellow tone to the pasta.
- Enhanced Cooking Performance:
  - Post-cooking stickiness is one of the biggest quality issues in both industrial production and consumer satisfaction. ADK Mate 130 minimizes starch leaching and gelatinization-related stickiness, ensuring the pasta remains bright and separate on the plate.
- Application Flexibility:
  - Suitable for both 100% durum wheat semolina and blended wheat-based formulations. It integrates easily into standard production processes and does not require pre-treatment.

### Maintain Quality Amid Raw Material Challenges

Fluctuations in the supply of pasta wheat have led many producers to switch to bread wheat or hybrid formulations. However, this transition carries serious quality risks: low gluten quality, color loss, stickiness, and texture degradation. Here, ADK Mate 130 minimizes these risks and secures quality standards.

### Standardize Quality, Strengthen Your Brand

With ADK Mate 130, we support not only the final product but also your brand's reliability, customer satisfaction, and production efficiency. We are also here to provide technical support and application consultancy tailored to each formulation.

# PASTA & NOODLE IMPROVER

## • ADK MATE 130 PASTA NOODLE

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**USAGE AREA** : Application: In pasta and noodle production facilities  
Dosage:  
Recommended Amount: 10-15 g per 100 kg of flour.

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**BENEFITS** : • Optimizes Dough Rheology: Prevents breakage and cracking during the drying phase by optimizing the dough's rheological properties.  
• Reduces Appearance of Defects: Minimizes the visibility of blemishes on the product.  
• Increases Surface Hardness: Enhances the surface hardness of the pasta.  
• Ensures Desired Color and Shine: Provides the desired color and gloss to the final product.  
• Improves Chewability: Enhances the chewability of the product post-cooking and prevents stickiness.

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# INDUSTRIAL SOLUTIONS

## I. TORTILLA IMPROVER

- **ADK MATE 400 TRTL-CHAPATI-PITA**
- **ADK MATE FLEX**

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**USAGE AREA** : In tortilla, chapati, and pita bread production facilities.  
Dosage:  
ADK MATE 400 TRTL-CHAPATI-PITA: 100-200 g per 100 kg of flour.

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**BENEFITS** : • Provides a high water and fat content for flatbread varieties that require dough development during the kneading process.  
• Maintains shape (prevents shrinkage).  
• Prevents edge breakage.  
• Achieves dough and process stability

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# INDUSTRIAL SOLUTIONS

## II. TOAST, HAMBURGER, AND SANDWICH BREAD IMPROVER

- **ADK MATE 400 TOST-SNDWCH**
- **ADK MATE 400 HBURGER**

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**USAGE AREA** : In toast, sandwich, and hamburger bread production facilities.  
Dosage:  
ADK MATE 400 TOST-SNDWCH: 100-200 g per 100 kg of flour  
ADK MATE 400 HBURGER: 100-200 g per 100 kg of flour

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**BENEFITS** : 

- Provides a dough structure with high elasticity.
- Ensures a uniform pore distribution in the dough structure.
- Achieves standard color distribution during baking.
- Prevents collapse from the sides of the mold inward.
- Maintains freshness and softness for an extended period.

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# INDUSTRIAL SOLUTIONS

## III. BISCUIT, WAFER, AND CRACKER IMPROVER

- **ADK MATE F-PRO**
- **ADK MATE B-PRO**
- **ADK MATE FB-PRO**

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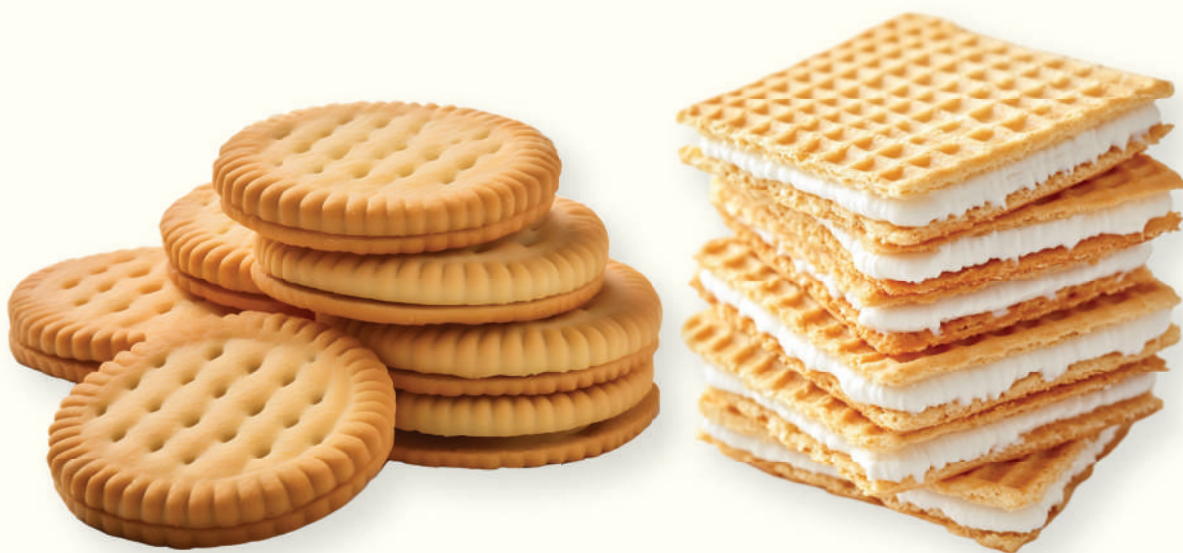
**USAGE AREA** : Protease enzymes are used in fluid dough processes for biscuits, wafers, kadayıf, etc.  
Dosage:  
Usage Rates: 10–20 g per 100 kg of flour

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**BENEFITS** : 

- Proteases:
- Facilitate the hydrolysis of gluten protein bonds.
- Reduce the index value of flour.
- Decrease dough resistance.
- Enable the production of elastic and easily moldable doughs.
- Lower the softening and stability values of the dough.
- Decrease water absorption capacity.
- Enhance flavor and browning.

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# INDUSTRIAL SOLUTIONS

## IV. CROISSANT, PUFF PASTRY, AND FROZEN DOUGH PRODUCT IMPROVERS

- **ADK MATE 400 SOFT (CROISSANT & PUFF PASTRY)**
- **ADK MATE 400 SOFT D (FROZEN DOUGH)**

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**USAGE AREA** : In production facilities using frozen dough (croissants, puff pastries, and all frozen dough products).  
Dosage:  
ADK MATE 400 SOFT / ADK MATE 400 SOFT D: 100–200 g per 100 kg of flour

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**BENEFITS** : The frozen dough method, developed due to technological advancements in the baking sector, allows for easy preparation and delicious products for both fillings and consumers.  
ADK MATE 400 SOFT and ADK MATE 400 SOFT D reduce transfer costs, save storage, and minimize labor costs.  
They prevent deformation issues that may occur during thawing, providing standardized products with a short thawing and baking time.

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# INDUSTRIAL SOLUTIONS

## V. PASTRY AND VARIETY PRODUCT IMPROVER

### • ADK MATE 400 ÇEŞİT

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**USAGE AREA** : In production facilities for various baked goods like poğaça and açma.  
Dosage:  
ADK MATE 400 ÇEŞİT: 100-200 g per 100 kg of flour

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**BENEFITS** :

- Increases the kneading and folding tolerance of the dough.
- Provides a structure that enhances the fat content in the dough.
- Supports the fermentation strength and stability of the dough.
- Tolerates margin of error in the final products.
- Improves volume, brightness, and freshness characteristics.

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# INDUSTRIAL SOLUTIONS

## VI. PIZZA IMPROVER

### • ADK MATE 400 PIZZA

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**USAGE AREA** : In pizza production facilities.  
Dosage:  
ADK MATE 400 PIZZA: 100–200 g per 100 kg of flour

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**BENEFITS** :

- Allows for higher yield due to high water absorption.
- Facilitates easy incorporation during production.
- Ensures easy stretching and prevents tearing during dough handling.
- Provides a desired homogeneous pore structure.
- Imparts softness and crispness to the pizza base.
- Enhances the flavor of the pizza.
- Allows for proper placement of toppings on the pizza base.
- Prevents bubble formation on the pizza surface after baking.
- Maintains freshness for an extended period.
- Preserves crispness and brightness over time.
- Ensures the production of standardized products.

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# BAGEL IMPROVER

- **ADK MATE 825**
- **ADK MATE 825 SMT**

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**USAGE AREA** : In bagel flour production processes.  
Dosage:  
ADK MATE 825 / ADK MATE 825 SMT: 10-30 g per 100 kg of flour

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**BENEFITS** :

- Achieves an elastic structure in the dough.
- Ensures small and uniform pores within the dough.
- Supports dough stability during fermentation development.
- Provides a crisp texture and shiny crust color in the final products.
- Maintains freshness for an extended period.

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# VITAMIN AND MINERAL SOLUTIONS

- **ADK MATE 105 BNN**
- **ADK MATE 105 DJBT**
- **ADK MATE 105 WFP**
- **ADK MATE 105 FLPN**
- **ADK MATE 105 FLSTN**
- **ADK MATE 105 YMN**
- **ADK MATE 105 GN**
- **ADK MATE 105 VNZ**

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**USAGE AREA** : Primarily for vitamins and minerals.  
Key Ingredients:  
Iron (Fe), Zinc (Zn), Vitamin B2, Vitamin B3, Vitamin B9, Vitamin B6, Vitamin B12, Vitamin A, Vitamin D.  
Dosage  
Usage Rate: 250 g per ton.

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**BENEFITS** : Approximately one-third of the global population suffers from vitamin and mineral deficiencies, largely due to scarcity and inadequate nutrition. Many countries have mandatory regulations for fortified cereals. There is a growing demand for vitamin and mineral premixes for flour supplementation due to these regulations.

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# RAW MATERIAL GROUPS

Product Group	Product Name	Usage Rate
<b>AMYLASE ENZYME</b>	ADK MATE F140 ADK MATE F60	1-3 gr / 100 kg 2-6 gr / 100 kg
<b>HEMISELULASE ENZYME</b>	ADK MATE HC ADK MATE FXYL ADK MATE BXYL	2-5 gr / 100 kg 2-5 gr / 100 kg 2-5 gr / 100 kg
<b>LIPASE ENZYME</b>	ADK MATE LP	0,5-1,5 gr / 100 kg
<b>GLUCOSE OXIDASE ENZYME</b>	ADK MATE GOX	0,3-1,5 gr / 100 kg
<b>MALTOGENIC AMYLASE ENZYME</b>	ADK MATE MAM ADK MATE BG	2-5 gr / 100 kg 2-5 gr / 100 kg
<b>GLUCOAMYLASE ENZYME</b>	ADK MATE AMG	1-2 gr / 100 kg
<b>TRANSGLUTAMINASE ENZYME</b>	ADK MATE TG	1-4 gr / 100 kg
<b>CELLULASE ENZYME</b>	ADK MATE CE	2-4 gr / 100 kg
<b>PROTEASE ENZYME</b>	ADK MATE F-PRO ADK MATE B-PRO ADK MATE FB-PRO	10-20 gr / 100 kg 10-20 gr / 100 kg 10-20 gr / 100 kg



**WE CARE YOUR BUSINESS**

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