### **PT Lautan Otsuka Chemical**

Blowing Agent Manufacturer

**PT Lautan Otsuka Chemical** 

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# Product Catalog

## Chemical Blowing Agent

Chemical Blowing Agent can form bubbles within a matrix, such as plastics and rubbers. These Matrixes can be given secondary functions such as thermal insulation, cushioning effect, floatability, vibration proofing, vibration proofing, sound insulation, sound absorbency, sealing action, air permeability, decorative qualities and light weight.

### **APPLICATION ADVANTAGES**



#### **UNIFOAM AZ**

UNIFOAM AZ is a yellowish powder composed mainly of Azodicarbonamide. Azodicarbonamide is a compound that decomposes and releases gas under heat, thus able to form cells / bubbles in matrixes of plastic, etc. Azodicarbonamide is widely used as a foaming agent for plastics and rubbers to provide ideal cell structure for thermal insulation, sound proofing, cushioning, and decorative functionality.

#### **PRODUCT FEATURES**

- 1. High solubility and dispersibility in plastic, rubber.
- 2. Decomposition temperatures suitable for plastic and rubber.
- 3. Easily adjustable decomposition temperature and decomposition rate.
- 4. High gas volume (220 245 mL/g).
- 5. Low mold contamination by pyrolysates.
- 6. Low decomposition heat.
- 7. High storage stability and temporal stability.
- 8. Highly safe and easy to handle.

#### **BASIC GRADE OF UNIFOAM AZ**

GRADE	VI-8	НЈ	<b>VI-10</b>	VI-25	VI-30	<b>VI-</b> 40
Appearances	Yellow fine powder					
Median Particle Size ( $\mu$ m)	$17.5 \pm 3.5$	8.0 ± 1.5	6.5 ± 1.3	5.0 ± 1.0	$4.3 \pm 0.4$	$3.2 \pm 0.7$
Decomposition Temp.(°C)	199 ± 1	199 ± 1	199 ± 1	199 ± 1	199 ± 1	199 ± 1
Volatile Matter (%)	Max. 0.2					
Gas Collected (mL/g)	240 ± 5	240 ± 5	240 ± 5	240 ± 5	240 ± 5	240 ± 5



## ORGANIC BLOWING AGENT



### ORGANIC BLOWING AGENT



#### **UNIFOAM AZ ULTRA**

UNIFOAM AZ ULTRA is surface treated to enhance dispersibility and improve the quality of the blowing agent product. The blowing agents of the UNIFOAM AZ ULTRA Series have been developed with powder technology and surface treatment technology to avoid caking and dust pollution. These blowing agents are suitable for foaming resins that readily produce pinholes and voids such as polyolefin, EVA, etc.

#### **PRODUCT FEATURES**

- 1. Superior compatibility and dispersibility in plastics, rubber, etc.
- 2. Decomposition temperatures suitable for plastic and rubber processing.
- 3. Ability to control decomposition temperature and speed.
- 4. High gas volume (220 245 mL/g).
- 5. Low amount of contamination form degradation.
- 6. Low degradation over time; excellent storage stability.
- 7. No moisture absorption during storage, easy to warehouse.
- 8. Dry grade allows for air shipment and automatic weighing.
- 9. Dust prevention improves working environment.

10.Enhanced dispersion in the resin; reduces voids and pinholes.

#### **BASIC GRADE OF UNIFOAM AZ ULTRA**

GRADE	#1195-I	#1100-I	#1067-I	#1050-I	#1043-I	#1035-I
Appearances	Yellow fine powder					
Median Particle Size ( $\mu$ m)	19.5 ± 3.5	9.0 ± 1.5	6.5 ± 1.3	5.0 ± 1.0	$4.3 \pm 0.4$	3.2 ± 0.7
Decomposition Temp.(°C)	201 ± 2	200 ± 1	200 ± 1	200 ± 1	200 ± 1	200 ± 1
Volatile Matter (%)	Max. 0.2					
Gas Collected (mL/g)	240 ± 5	240 ± 5	240 ± 5	240 ± 5	240 ± 5	240 ± 5



#### **BLENDED BLOWING AGENT**

Blended blowing agent are designed to provide functionality to foamed materials and meet the diverse processing needs conventional blowing agents cannot. These blended blowing agents provide functional enhancements to foamed products and create bubble shapes that are impossible using conventional Azodicarbonamide-based agents. We offer different grades of blowing agents optimized for our customer's ideal processing conditions: decomposition temperature, gas volume, etc.

#### **PRODUCT FEATURES**

- 1. Blowing temperature control; ability to process at a low temperature.
- 2. High degree of whiteness, produces stunning foamed surface.
- 3. Ability to control foaming magnification.

#### **BASIC GRADE OF BLENDED BLOWING AGENT**

GRADE	MI-50T KAI	MI-08T	MI-50UC	MI-50P KAI
Appearances	Yellow fine powder	Yellow fine powder	Yellow fine powder	Yellow fine powder
Decomposition Temp.(°C)	$196.5 \pm 2.5$	183.0 ± 3	187.0 ± 2	186.5 ± 2
Volatile Matter (%)	Max. 0.3	Max. 0.2	Max. 0.3	Max. 0.3
Gas Collected (mL/g)	237 ± 10	210 ± 20	193 ± 10	188 ± 10



## ORGANIC BLOWING AGENT

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### **INORGANIC BLOWING AGENT**

Inorganic blowing agent made from inorganic carbonate and sodium bicarbonate. Inorganic blowing agent improve the efficiency of the blowing process through endothermic reactions. This type of reaction enhances the quality of the foamed product and avoids issues seen in organic foaming agents such as discoloration and unpleasant smells.

#### **PRODUCT FEATURES**

- 1. Whiteness reduces discoloration in foamed material.
- 2. Reduced die contamination and metal corrosion compared to organic blowing agents.
- 3. Reduced molding time through endothermic decomposition.

Micro-fine blowing agent can easily worsen the working environment as well as making automatic weighing and supply difficult. Molding is also a concern in regards to worsening the foamed product. Masterbatch Organic Blowing Agent were developed in order to solve these problems and to improve the overall efficiency of the blowing agent. PT Lautan Otsuka Chemical is ready to supply their variety of blowing agents for objected plastics, rubber, or ways of molding.

#### **PRODUCT FEATURES**

- 1. There is no dust, and the deterioration of the work environment can be prevented, and it is very marvelous to, humans and environment.
- 2. It is easy to carry out automatic measure, automatic supply, and the improvement in the work efficiency can be attempted.
- 3. It is easy to carry out the mixing to the plastic rubber, and it is excellent in the dispersiveness.
- 4. Possibility to choose the grade which suits purpose product and processing method, machining condition.

#### **BASIC GRADE OF MASTERBACTCH ORGANIC BLOWING AGENT**

0	GRADE	UNIFOAM AZ VI-50L3 60ME
e powder	Appearances	Yellow Grain
25	Gas Collected (mL/g)	Min. 135
.2		
	175	Gas Curve of Masterbatch Organic Blowing (1g of sample / 10mL of Liquid Paraffin; Temp. increase at 2°C/m



#### **BASIC GRADE OF INORGANIC BLOWING AGENT**

GRADE	SU90	S97	<b>S</b> 90	M80
Appearances	Yellow fine powder	White fine powder	White fine powder	White fine powder
Decomposition Temp.(°C)	175 ± 10	170 ± 25	170 ± 20	$225 \pm 25$
Volatile Matter (%)	Max. 1.2	Max. 1.0	Max. 1.0	Max. 1.2
Gas Collected (mL/g)	Min. 134	Min. 108	Min. 100	Min. 70



### **MASTERBATCH** ORGANIC **BLOWING** AGENT



LOCFOAM A2033L

Yellow Grain Min. 66

### **MASTERBATCH INORGANIC BLOWING** AGENT



Masterbatch Inorganic Blowing Agent were developed in order to improve the overall process efficiency of the blowing agent and better for environment. These blowing agents are suitable for PE, PP, EVA, etc.

#### **PRODUCT FEATURES**

- 1. There is no dust, and work environment being good and friendly for human.
- 2. Smooth surface and reduce flow mark and sink marks in the injection and extrusion molding.
- 3. Easy to handle, easy weighing, and easy to dispersed.





**ORGANIC BLOWING AGENT** 

(UNIFOAM AZ, UNIFOAM AZ ULTRA & BLENDING BLOWING AGENT) General Packaging Carton Box @ 25 Kg

INORGANIC **BLOWING AGENT** General Packaging Carton Box @ 25 Kg

#### **BASIC GRADE OF MASTERBATCH INORGANIC BLOWING AGENT**

GRADE	S9720L	S9020L	S7020L	M8020L
Appearances	White Grain	White Grain	White Grain	White Grain
Gas Collected (mL/g)	Min. 19	Min. 19	Min. 18	Min. 16



# **Product Application**



PT. Lautan Otsuka Chemical

The packaging shown here is usually applied to:



**MASTERBATCH** (MASTERBATCH ORGANIC & **INORGANIC BLOWING AGENT)** 

General Packaging Paper Bag @20 Kg







9