UNICELL-XLPE Series

Description

UNICELL-XLPE series, the trade name of modified azodicarbonamide, is specially recommended as an effective foaming agent for cross-linked LDPE or PP foams.

The decomposition residues of **UNICELL-XLPE** series are non-staining, odorless, and colorless. In addition, they exhibit a micro-cellular structure.

They can be easily dispersed into polyethylene and polypropylene. Moreover, it is unnecessary to add either cross-linking co-agents or foaming activators to produce uniform and fine white foams with smooth surfaces.

UNICELL-XLPE series is stable under normal conditions and throughout compounding. It can be chosen according to processing requirements, without the need for any additives.

Properties of UNICELL-XLPE Series

Chemical Cross-linking Process

Item	Specification				
Grade Name	D1500PE	1500TSK	DT08M	YCE	TL
Chemical Name	Modified Azodicarbonamide				
Appearance	Fine Yellow Powder				
Decomposition Temperature (°C)	181~185	198~202	200~204	195~199	197~203
Gas Volume (ml/g, at 25°C)	200~220	220~240	220~240	195~215	225~245
Average Particle Size (μm)	*11.5~15.5	*11.5~15.5	*14.0~17.0	*11.0~15.0	*17.0~21.0
Moisture Contentor Heat Loss (%)	0.6 max.	1.3 max.	0.5 max.	1.5 max.	0.8 max.

*Measured by Laser Particle Sizer

Applications

General applications of polyethylene foams with **UNICELL-XLPE** series include:

- Thermal insulations
- Floating devices
- Packaging materials
- Sports and leisure goods
- Life jackets
- Chemical cross-linking foams

*Modified Azodicarbonamide (Azobisformamide)
*Specially designed foaming agents for cross-linked LDPE or PP foam

UNICELL-IXPE Series

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Properties of UNICELL-IXPE Series

Electron Beam Radiation Cross-linking Process #1

Item	Specification		
Grade Name	D1000CS	D1500TID	D1500CS
Chemical Name	Modified Azodicarbonamide		
Appearance	Fine Yellow Powder		
Decomposition Temperature (°C)	204~208	202~205	200~202
Gas Volume (ml/g, at 25°C)	225~245	220~240	215~225
Average Particle Size (μm)	*11.0~14.0	*11.5~14.5	*22.0~26.0
Moisture Content (%)	0.08 max.	0.3 max.	0.08 max.

*Measured by Laser Particle Sizer

Electron Beam Radiation Cross-linking Process #2

Item	Specification			
Grade Name	D30CSK	D3000CS	D20PE	D20PEM
Chemical Name	Modified Azodicarbonamide			
Appearance	Fine Yellow Powder			
Decomposition Temperature (°C)	202~208	204~208	204~208	204~208
Gas Volume (ml/g, at 25°C)	225~245	225~245	230~250	230~250
Average Particle Size (μm)	*23.5~27.0	*24.5~26.5	*18.0~24.0	*18.0~24.0
Moisture Content (%)	0.08 max.	0.08 max.	0.3 max.	0.3 max.

*Measured by Laser Particle Sizer

Applications

General applications of polyethylene foams with **UNICELL-IXPE** series include:

- Thermal insulations
- Floating devices
- Packaging materials
- Sports and leisure goods
- Life jackets
- Electron beam radiation cross-linking foams

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*Specially designed foaming agents for cross-linked LDPE or PP foam