

NeXgener[®]

Foam Blowing agent



NeXgener®

100% Chemical blowing agent as a new polyurethane blowing agent

Background

Foam Blowing Agent have moved away from chlorofluorocarbon(CFC) over last few years to use hydrochlorofluorocarbon(HCFC) and hydrofluorocarbon(HFC). However, HCFC is one of the ozone-depleting substances regulated by the Montreal Protocol on substances that deplete the ozone layer. and its use is prohibited from 2020 in advanced contries. HFC is also not an ozone layer depleting substance, but has a high global warming potential, so it is classified as a greenhouse gas under the kyoto protocol and has been phased out from 2024.

This worldwide move to reduce greenhouse gases has raised the need for a foam blowing agent with zero ODP and zero GWP in the foam industry.

NeXgener® Characteristic

NeX is a chemical blowing agent for polyurethane, and ODP and GWP are zero.

NeX has strong internal heat due to crosslinking reactions, which can increase the amount of water to control the crosslinking reaction and adjust the amount of foaming.

NeX has about 400 OH-V, so it can be used by increasing MDI usage and index.

In the case of PIR injection, there are no problems such as decrease in flowability, shrinkage, and increase in demolding time due to isocyanate reaction even if trimerization catalyst is used less.

For injection, low-density products can be produced when 100% ester polyol is used due to its excellent flowability, and there are no problems with shrinkage or surface fiability.

In particular, NeX is non-toxic and non-flammable, making it easy to handle.

When NeX is foamed, fine cells are created, showing excellent thermal conductivity similar to HCFC-141b, and better results can be obtained when used in combination with existing physical foaming agents.

Properties

Appearance	Light yellowish liquid	ODP	0
Boiling point, (°C)	354	GWP	0
Specific gravity(25°C)	1.35 ± 0.1	Flash point, (°C)	198
Viscosity (cps, 25°C)	<100	Toxicity	None
OH-Value	400 ± 50		

Packaging

260 kg/ Drum

Storage and Shelf Life

NeX should be stored in a dry and cool environment away from direct sunlight, and the expiration date is 12 months form the date of manufacture.

Safe Use

Keep out of reach of children and be careful not to ingest the contents. Use other than intended is prohibited.

When handling, it is recommended to work after testing the working conditions (polyol, catalyst, temperature, time, etc.) according to the working environment.

Avoid direct sunlight and store in a dry, cool and dark place (10~30°C), as there is a risk of product damage or content deterioration during transportation and handling, and keep the container tightly closed. Also, be careful not to store near fire or subject the container to impact.

Wear appropriate protective equipment such as gloves and protective glasses when handling

In case of contact with eyes and skin, wash thoroughly under running water and seek medical attention in case of abnormalities.

When disposing, dispose of it through a waste disposal company designated by the ministry of environment. The quality of product after the expiration date is not guaranteed.

Company Details

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※ This data is based on theories and experiments at the Seho Research Institute. The contents and data are subject to our continuous quality improvement. For other detailed usage and safety precautions, please refer to the Material Safety Data Sheet(MSDS).