Product Data Sheet Flame Retardants **Additives**

Exolit® OP 550

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Highly effective reactive, non-halogenated phosphorus polyol

Product Description

Clariant's Exolit OP 550 flame retardant can be used for flexible polyurethane foams. It is a medium-viscosity liquid and it is based on a non-halogenated phosphorus polyol with a functionality of approx. 2. The product is a reactive flame retardant that can be chemically reacted into the polymeric matrix, preventing unwanted migration from the foam. Therefore, very low fogging values can be achieved which meet the most stringent emission standards for PU flexible foams in the automotive industry.

For more details see our Video about Exolit® OP 550 and 560.

Benefits

- Primarily suited for the production of flame-retarded polyurethane foams
- High flame retardant efficiency and high ageing resistance in its flame retardant effect as well as high migration stability due to its chemical incorporation into the polymer matrix
- Non-halogenated flame retardants with favourable environmental and health profile
- Characterized by a high phosphorus content and high flame retardancy perfomance

Specifications

Characteristics	Unit	Target value	DS[1])	TD[2])	Test method
Phosphorus	%(w/w)	16.0 - 18.0	☑	☐	Photometry after oxidizing dissolution; (11/17)
Density	g/cm³	1.31	☐	☑	at 25 °C
Viscosity	mPa*s	max. 3,500	☑	☐	Brookfield viscosimeter, 25 °C; (11/30)
Color Number (Hazen, APHA)	Hazen	max. 600	☑	☐	Spectrophotometry; (11/22)
Acid Number	mg KOH/g	max. 2	☑	☐	Titration using alkali; (11/11)
Hydroxyl Number	mg KOH/g	max. 170	☑	☐	Double Karl-Fischer-titration; (11/14)

[1]) Delivery specification: The product is monitored on a regular basis to ensure that it adheres to the specified values. Test methods: Clariant method numbers 11/xx in brackets.
[2]) Technical data: The technical data are used solely to describe the product and are not subject to regular monitoring.

Applications

Exolit OP 550 is primarily suited for the production of flame-retarded polyurethane foams. The product is distinguished by a high flame retardant efficiency and attains a high ageing resistance in its flame retardant effect as well as a high migration stability due to its chemical incorporation into the polymer matrix.

It is recommended to use an anti-scorching agent when processing Exolit OP 550. Potential anti-scorching agents include Hydroquinone, Lacton EG 472 or Irganox HP 3560.

Packaging and Handling

Delivery form
Liquid

Packaging
Exolit OP 550 is supplied in following packaging units:
1 kg sample bottles
50 kg PE open head drums (8 drums per pallet)
1.000 kg net in non-returnable 1.000 liter semi bulk containers

Storage
In the presence of moisture or water Exolit OP 550 hydrolyses slowly and should therefore be stored and handled in such a way to exclude any potential sources of moisture.

Minimum shelf life is 12 months from the date of shipping when stored according to the said conditions.

Safety and MSDS

For regulatory details such as the classification and labelling as dangerous substances or goods please refer to our corresponding Material Safety Data Sheet.

Contact Us;
Please contact us for safety and regulatory details or the Material Safety Data Sheet (MSDS).

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