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Additives

Exolit® RP 6500

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Stabilised, micro encapsulated red phosphorus in an epoxy resin carrier

Product Description

Exolit RP 6500 is a brown-red paste, and is a blend of stabilised, micro encapsulated red phosphorus in an epoxy resin carrier. The paste form allows safe and simple handling of the red phosphorus in a liquid form, and avoids the hazards associated when working with red phosphorus powders. The thixotropic nature of this concentrate hinders the sedimentation process and simplifies the re-homogenisation after long storage periods.

For better handling, in particular regarding flow properties, the product may be warmed up to 50°C - max. 80°C.

Benefits

- Safe and simple handling due to its paste form, making processing easier
- The thixotropic nature hinders the sedimentation process and simplifies rehomogenisation after long storage periods
- Developed as a flame retardant for polyurethanes
- Very effective flame retardant due to its high phosphorus content
- Non-halogenated flame retardant with favorable environmental and health profile

Specifications

Characteristics	Unit	Target Value	DS ¹⁾	TD ²⁾	Test Method
Phosphorus	%(w/w)	43.0 - 47.0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Gravimetry after oxidizing dissolution; (11/16)
Density	g/cm ³	1.42 - 1.62	<input type="checkbox"/>	<input checked="" type="checkbox"/>	at 25 °C
Viscosity	Pa*s	max. 600	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Brookfield viscosimeter, 25 °C; (11/30)
Beckopox EP 140 Content	%(w/w)	52.0 - 57.0	<input type="checkbox"/>	<input type="checkbox"/>	Gravimetry after extraction using acetone; 11/01
			<input checked="" type="checkbox"/>		

¹⁾ Delivery specification: The product is constantly monitored 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 RP 6500 has been developed as an effective flame retardant for epoxy resins. Due to its high phosphorus content the product is a very effective flame retardant. Exolit RP 6500 can be used to make halogen-free flame retarded epoxy resin laminates by impregnation of glass cloth (gram weight 200 g/cm²) with epoxy resin solutions. Using about 12 phr of Exolit RP 6500 can lead to a V-0 classification. These laminates can be used for printed circuit boards or for epoxy moulding/ potting compounds. Red Phosphorus and aluminium hydroxide have a synergistic flame retardancy effect. When combining Exolit RP 6500 with aluminium hydroxide a UL 94 classification of epoxy casting resins can be achieved with low amounts of fillers.

Packaging and handling

Exolit RP 6500 is supplied in the following packaging:

1 kg sample bottles
50 kg net plastic drums
200 kg net steel drums

Storage:

After long storage periods, in particular at low temperatures, rehomogenisation will be necessary and should be done by stirring at room temperature or better elevated temperature (50°C - 80°C).

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

Safety

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

As stated in the safety data sheet of the substance the use "industrial manufacture of screening smoke ammunition or smoke payloads" is advised against within the EU according to the REACH regulation. Therefore, every manufacturer of smoke ammunition or smoke payloads is obliged to create a chemical safety assessment for these uses

and to inform the ECHA accordingly.

Category of danger/Category Hazard symbol

R-phrases

Irritant

Explosive when mixed with oxidizing substances

Irritating to eyes and skin. May cause sensitization by skin contact.

Dangerous for the environment Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Contact Us;

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

www.clariant.com



Clariant International Ltd



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