Technical Data Sheet

EPON™ Resin 2024

Product Description

EPON™ Resin 2024 is a solid bisphenol A/epichlorohydrin epoxy resin that contains half a percent weight of the flow control agent, MODAFLOW[1]. This resin is designed specifically for formulators of thin-film functional/decorative powder coatings who desire to have the flow control agent evenly dispersed throughout the resin. EPON Resin 2024 is recommended for use in powder coatings for appliances, metal shelving, institutional furniture and automotive parts. In addition, it can be used in thick-film functional pipe and electrical insulation coatings.

Formulation and Application Information

Consult Technical Brochure, entitled “Formulating Powder Coatings with EPON Resins.”

Benefits

- Uniform properties from lot to lot
- Filtered to remove particulate contaminants
- Low in color
- Stable on storage
- Flows evenly and cures rapidly at elevated temperatures
- Provides consistent cure response with a wide variety of curing agents

Sales Specifications

Property	Value	Unit	Test Method
Color	100 max	Platinum-Cobalt	ASTM D1209
Viscosity at 25°C	17 - 26	cP	ASTM D445
Weight per Epoxide	850 - 950		ASTM D-1652

Typical Properties

Property	Value	Unit	Test Method
Bulk Density	36 - 42	lb/ft³	
Density	1.18	g/mL	
Density	1.18	g/mL	
Melt Viscosity at 150°C	60 - 120	P	ASTM D2196
Mettler Softening Point	95 - 105	°C	ASTM D-3461
MODAFLOW Content	0.5 ± 0.05	%	

[1] MODAFLOW is a trademark of Solutia Inc.
[2] ASTM D 1652 (Epoxy Content of Epoxy Resins - Perchloric Acid Method).
[3] ASTM D 445 (Kinematic Viscosity - Determination of viscosity of liquids by Ubelohde Viscometer).
[4] ASTM D 1209 (Platinum-Cobalt Scale).
[5] Density of Powder Coating Materials, The Powder Coating Institute, Recommended Procedure #4.

[6] ASTM D 2196 (Brookfield Viscometer - Thermosel, about 10 grams)
[7] ASTM D 3461, Mettler, 1 °C/minute.

Processing/How to use

General Information

Powder coatings formulated using EPON Resin 2024 give all of the benefits traditionally associated with epoxy coatings. They provide tough and durable films which have excellent adhesion to most substrates, are highly impact resistant and protect against chemical attack.

The low concentration of particulates and low moisture content in EPON Resin 2024 make this a highly desirable resin for powder coatings which must produce smooth films free of surface defects.

The addition of the MODAFLOW to the base resin provides a foolproof technique for optimum dispersing of the flow agent in a powder formulation.

FDA Status

Paragraph 175.300 in Title 21 of the Code of Federal Regulations permits and regulates the use of epoxy resins such as cured EPON Resin 2024 as indirect food additives in food contact applications.

Curing agents and catalysts for EPON Resin coating systems are also regulated under several sections of Title 21, for example 175.300 and 177.2280, and are subject to the limitations imposed by these sections and the general requirements of good manufacturing practices. Consult these sections for specific examples.

Identification and Classification

Chemical Abstract Service Registry Number: No number is available because EPON Resin 2024 is a mixture. The components are found in the TSCA inventory and are listed as follows:

Base epoxy resin: CAS No. 25036-25-3

MODAFLOW: CAS No. 26376-86-3

Safety, Storage & Handling

Please refer to the MSDS for the most current Safety and Handling information.

Please refer to the Hexion web site for Shelf Life and recommended Storage information.

Exposure to these materials should be minimized and avoided, if feasible, through the observance of proper precautions, use of appropriate engineering controls and proper personal protective clothing and equipment, and adherence to proper handling procedures. None of these materials should be used, stored, or transported until the handling precautions and recommendations as stated in the Material Safety Data Sheet (MSDS) for these and all other products being used are understood by all persons who will work with them. Questions and requests for information on Hexion Inc. ("Hexion") products should be directed to your Hexion sales representative, or the nearest Hexion sales office. Information and MSDSs on non-Hexion products should be obtained from the respective manufacturer.

Packaging

Available in bulk and drum quantities.

Contact Information

For product prices, availability, or order placement, please contact customer service:

www.hexion.com/Contacts/

For literature and technical assistance, visit our website atwww.hexion.com