

Technical Data Sheet

Bayferrox® 110

Description

Type	Red pigment
Delivery form	Powder
Chemical class	Synthetic iron oxide α - Fe_2O_3
Colour Index	Pigment red 101 (77491)
CAS-No.	1309-37-1
REACH registration no.	01-2119457614-35-0000

Specified Color Data

Colour values and tinting strength					
Standard	Bayferrox 110				
Year	2018				
Binder:	Full shade		Reduction		Test method
Test paste based on a non drying alkyd resin			with titanium dioxide (1:5) ⁴⁵		No. 001 ⁴¹
	min	max	min	max	
ΔL^*	-0.5	0.5			
Δa^*	-1.0	1.0	-1.0	1.0	
Δb^*	-1.2	1.2	-1.3	1.3	
ΔE^*_{ab}		1.5		1.5	
Binder: Barytes			95	105	Test method No. 003 ⁴¹
Relative tinting strength [%]					

Specified Technical Data

Technical Data	min	max	Test method
Water-soluble content [%]		0.5	similar to DIN EN ISO 787-3:2000 ⁴¹
Sieve residue (0.045 mm sieve) [%]		0.06	DIN EN ISO 787-7:2009 ⁴¹
pH value	4	8	DIN EN ISO 787-9:1995 ⁴¹

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Informative Technical Data (guide values)

These items are provided as general information only. They are approximate values and are not considered part of the product specifications.

			Test method
α - Fe ₂ O ₃ Content [%] ⁵³	>	99.1	Information about the determination of iron oxide ⁴¹
Loss on ignition at 1000 °C, 0.5 h [%]	<	0.7	DIN 55913-2:1972
Moisture content (after production) [%]	<	0.5	DIN EN ISO 787-2:1995
Particle shape		spherical	Electron micrographs
Predominant particle size [µm]	~	0.09	Electron micrographs
Oil absorption [g/100 g]	~	28	DIN EN ISO 787-5:1995
Tamped density [g/ml]		0.7 - 1.1	similar to DIN EN ISO 787-11:1995
Density [g/ml]	~	5.0	DIN EN ISO 787-10:1995

⁴¹ Obtainable from LANXESS Deutschland GmbH, Business Unit Inorganic Pigments, mailto: ipg.product-information@lanxess.com

⁴⁵ Colour values after matching of the tinting strength parameter Y, i.e. $\Delta L^*=0$

⁵³ Minor elements may arise from the raw materials used. However, these are firmly bound to the crystal lattice as ions.

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Packaging

"Grades are delivered in different packaging materials. Please ask your local contact about the packaging for the grade in question or send an enquiry mailto: ipg.product-information@lanxess.com"

Transport and Storage

General storage conditions:	Protect against weathering. Store in a dry place and avoid extreme fluctuations in temperature.
Special conditions for opened packaging:	Close bags after use to prevent the absorption of moisture and contamination.
Shelf life:	<p>This product has an excellent shelf life. We recommend that this product is used within ten years of the date of manufacture and limit our product warranty to this period. During the first ten years after the date of manufacture we are able to ensure compliance with this specification, provided the material has been stored as stated above and the packaging materials remain undamaged. It must be taken into account that the packaging mean can have a shelf life considerably shorter than the one for this product. All recommendations and warnings given on the packaging must strictly be adhered to. Deviations from storage conditions can lead to undesired changes on side of the packaging materials. These succumb to ageing which may also lead to compromising their capability. Concerning their estimated service life we differentiate between the following packaging materials:</p> <p>All kinds of bags (Paper and PE) 5 years All kinds of Bulk bag 3 years</p> <p>With respect to our Bulk Bags we recommend to avoid UV-radiation because the sewing material of the lifting loops is stabilized against degradation by UV-radiation for appr. 1000 h incident sun radiation for the climate of Central Europe. A more intense sun radiation can shorten this period significantly. In cases of doubt the lifting loops must be checked thoroughly.</p>

Safety

Classification	<p>The product is not classified as dangerous under the relevant EC Directives and corresponding national regulations valid in the individual EU member states. It is not dangerous according to transport regulations.</p> <p>In countries outside the EU, compliance with the respective national legislation concerning the classification, packaging, labelling and transport of dangerous substances must be ensured.</p>
Additional Information	<p>The safety data sheet should be observed. This contains information on handling, product safety and ecology.</p> <p>The safety data sheet is available at www.bayferrox.us.</p>

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Information concerning food contact regulations

This product complies with the purity requirements of the following legal regulations or is listed on the mentioned positive lists.

General remark

As the food contact regulations of each country may differ, it is the responsibility of the manufacturer of the finished articles to ensure compliance with the respective country's regulation (e.g. migration or extraction limits).

European Union (Council of Europe)	Resolution AP (89) 1 on the use of colourants in plastic materials coming into contact with food
Belgium	Koninklijk besluit van 11 mei 1992 betreffende materialen en voorwerpen bestemd om met voedingsmiddelen in aanraking te komen
Germany	Empfehlung IX "Farbstoffe zum Einfärben von Kunststoffen und anderen Polymeren für Bedarfsgegenstände" des Bundesinstituts für Risikobewertung (BfR) vom 01.02.2015
France	Circulaire n°176 consolidée du 2 décembre 1959 modifiée relative aux pigments et colorants des matières plastiques et emballages.
Netherlands	Warenwetregeling verpakkingen en gebruiksartikelen van 14 maart 2014
Spain	Real Decreto 847/2011, de 17 de junio, por el que se establece la lista positiva de sustancias permitidas para la fabricación de materiales poliméricos destinados a entrar en contacto con los alimentos.
Australia	AS 2070-1999
USA	According to § 178.3297 (Colorants for Polymers)

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Status of Registration

The components of this product are listed on the following inventories:				
Europe: EINECS	USA: TSCA	Canada: DSL	Australia: AICS	New Zealand: NZIOC
Philippines: PICCS	Japan: ENCS + ISHL	Korea: ECL	China: IECSC	Taiwan: NECSI

The manner in which you use and the purpose to which you put and utilize our products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations are beyond our control. Therefore, it is imperative that you test our products, technical assistance and information to determine to your own satisfaction whether they are suitable for your intended uses and applications. This application-specific analysis must at least include testing to determine suitability from a technical as well as health, safety, and environmental standpoint. Such testing has not necessarily been done by us. Unless we otherwise agree in writing, all products are sold strictly pursuant to the terms of our standard conditions of sale. All information and technical assistance is given without warranty or guarantee and is subject to change without notice. It is expressly understood and agreed that you assume and hereby expressly release us from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance, and information. Any statement or recommendation not contained herein is unauthorized and shall not bind us. Nothing herein shall be construed as a recommendation to use any product in conflict with patents covering any material or its use. No license is implied or in fact granted under the claims of any patent.

Health and Safety Information: Appropriate literature has been assembled which provides information concerning the health and safety precautions that must be observed when handling the LANXESS products mentioned in this publication. Before working with any of these products, you must read and become familiar with the available information on their hazards, proper use, and handling. This cannot be overemphasized. Information is available in several forms, e.g., material safety data sheets and product labels. Consult your LANXESS Corporation representative or contact LANXESS's Product Safety and Regulatory Affairs Dept., Pittsburgh, PA.

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