

Product Information

Bayferrox® 645 T

Description

Type	Brown pigment - High Performance, special with high thermal stability
Delivery form	Powder
Chemical class	Synthetic mixed iron and manganese oxide (Fe,Mn) ₂ O ₃
Colour Index	Pigment brown 43 (77536)
CAS-No.	12062-81-6 & 68186-94-7
REACH registration no.	01-2119457645-30-0000

Specification

Colour values and tinting strength				
Standard	Bayferrox 645 T			
Year	2013			
Binder: Test paste based on a non drying alkyd resin ⁴⁶	Full shade		Reduction ⁴⁵ with titanium dioxide (1:5)	Test method No. 001 ⁴¹
Δ L*	-0.5	0.5		
Δ a*	-1.2	1.2	-1.2	1.2
Δ b*	-1.3	1.3	-1.3	1.3
Δ C _{ab} *	-1.2	1.2	-1.2	1.2
Δ H _{ab} *	-1.2	1.2	-1.2	1.2
Δ E _{ab} *		1.5		1.5
Relative tinting strength [%]			95	110

Specification

Technical Data	min	max	Test method
water-soluble content [%]		0.8	DIN EN ISO 787-3:1995
Sieve residue (0.045 mm sieve) [%]		0.1	DIN EN ISO 787-7:2009
pH value	5.5	8.5	DIN EN ISO 787-9:1995

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Informative technical data (guide values)

			Test method
Fe ₃ O ₄ Content [%] ⁵³	>	90.1	information about the determination of iron oxide ⁴¹
MnO Content [%] ⁵³	<	9	Atomic spectroscopy
Loss on ignition at 1000 °C, 0.5 h [%]	<	0.5	similar to 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]	~	0.3	Electron micrographs
Oil absorption [g/100 g]	~	28	DIN EN ISO 787-5:1995
Tamped density [g/ml]		0.6 - 1.0	DIN EN ISO 787-11:1995
Density [g/ml]	~	4.5	DIN EN ISO 787-10:1995

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Packaging

The product is available in sacks or bulk bags. For further information please ask your local contact or send an enquiry by e-mail to [mailto: ipg.product-information@lanxess.com](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:	If stored under the correct conditions (no climatic influence, kept dry and no extreme fluctuations in temperature) our products have an excellent shelf life. However, due primarily to the limited durability of the packaging, we recommend that the product is used within 5 years of the date of manufacture and our product warranty is limited to this period. During the first five years after the date of manufacture we are able to ensure compliance with our specification, provided the material has been stored correctly and the packaging materials remain undamaged.

Safety

Classification	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.
Additional Information	In countries outside the EU, compliance with the respective national legislation concerning the classification, packaging, labelling and transport of dangerous substances must be ensured. The safety data sheet should be observed. This contains information on handling, product safety and ecology. The safety data sheet is available at www.bayferrox.de .

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Information concerning European food contact regulations (not specified)

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 colorants in plastic materials coming into contact with food. (requirements correspond with those of BfR Recommendation IX.)
Germany	Recommendation IX of the Federal Institute for Risk Assessment (BfR) dated 01. Jan 2010

Information concerning Non-European food contact regulations (not specified)

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)

USA	In compliance with applicable FDA-regulations according to § 178.3297 for use at 2 % or less in polymers and resins having food-contact end-uses subject to these limitations and any other applicable regulations.
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Status of registration (not specified)

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: METI	Korea: ECL	China: IECSC	Taiwan: NECSI

⁴¹obtainable from LANXESS Deutschland GmbH, Business Unit Inorganic Pigments, Fax +49-2151-88-9599-4139, mailto: ipg.product-information@lanxess.com

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

⁴⁶similar to wet system DIN 55983:1983

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