Product Information

Bayferrox® 3905

Description

Type	Yellow pigment - High Performance micronised
Delivery form	Powder
Chemical class	Synthetic iron hydroxide α - FeOOH
Colour Index	Pigment yellow 42 (77492)
CAS-No.	51274-00-1
REACH registration no.	01-2119457554-33-0000

Specified Color Data

Colour values and tinting strength				
Standard	Bayferrox 3905			
Year	1986			
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*	-0.4	0.4			
Δ a*	-0.8	0.8	-0.5	0.5	
Δ b*	-0.9	0.9	-0.6	0.6	
ΔC^*_{ab}	-0.8	0.8	-0.6	0.6	
ΔH^*_{ab}	-0.8	0.8	-0.6	0.6	
ΔE^*_{ab}		1.0		0.8	
Relative tinting strength [%]			97	103	

Specified Technical Data

Dispersibility	**min**	**max**	**Test method**
Binder Alkydal F 681 75 % in white spirit			
Fineness of grind [µm]		20/35/50	No. 004 [41]
Technical Data	**min**	**max**	**Test method**
Water-soluble content [%]		0.5	similar to DIN EN ISO 787-3:2000
Sieve residue (0.045 mm sieve) [%]		0.002	DIN EN ISO 787-7:2009
pH value	4.5	7.5	DIN EN ISO 787-9:1995

Edition: 2014-12-17 (Release 3.1)
Previous Edition: 2014-08-08 (Release 1.10)

Bayferrox® 3905

Informative Technical Data (guide values)

					Test method
α - FeOOH content [%] [53]	>		94.4		Information about the determination of iron oxide [41]
Loss on ignition at 1000 °C, 0.5 h [%] [3]	<		13		DIN 55913-2:1972
Moisture content (after production) [%]	<		0.5		DIN EN ISO 787-2:1995
Particle shape			acicular		Electron micrographs
Predominant particle size [µm]		0.1	x	0.4	Electron micrographs
Oil absorption [g/100 g]	~		38		DIN EN ISO 787-5:1995
Tamped density [g/ml]		0.5	-	0.9	similar to DIN EN ISO 787-11:1995
Density [g/ml]	~		4.0		DIN EN ISO 787-10:1995

[3] Iron oxide yellow pigments contain a large amount of chemically bound water that is also recorded

[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. Δ L*=0

[46] Similar to wet system DIN 55983:1983

[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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Bayferrox® 3905

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

Transport and Storage

General storage conditions:	Protect against weathering. Store in a dry place and avoid extreme fluctuations in temperature.
Maximum storage temperature:	When storing large quantities of pigments, temperatures above 120 °C must be avoided as an alteration (dehydratisation and oxidation) of the pigment may be caused by heat.
Special conditions for opened packaging:	Close bags after use to prevent the absorption of moisture and contamination.
Shelf life:	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: All kinds of bags (Paper and PE) …… 5 years All kinds of Bulk bag ……..…… 3 years 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.

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. In countries outside the EU, compliance with the respective national legislation concerning the classification, packaging, labelling and transport of dangerous substances must be ensured.
Additional Information	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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Bayferrox® 3905

Information concerning 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 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 "Farbmittel zum Einfärben von Kunststoffen und anderen Polymeren für Bedarfsgegenstände" des Bundesinstituts für Risikobewertung (BfR) vom 01.01.2010
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
Japan	Complies with JHOSPA*-Positive list for Colorants in plastics and other purity requirements * (JHOSPA = Japan Hygienic Olefin and Styrene Plastics Association)
USA	According to § 178.3297 (Colorants for Polymers)

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Bayferrox® 3905

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

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