

Product information

COLORTHERM® Yellow 10

Description

Type	Yellow pigment
Delivery form	powder
Chemical class	Synthetic iron hydroxide α - FeOOH
Colour Index	Pigment yellow 42 (77492)
CAS-No.	20344-49-4
REACH registration no.	01-2119457554-33-0000

Specification

Colour values and tinting strength				
Standard	COLORTHERM Yellow 10			
Year	2007			
Binder: Plasticised PVC	Full shade		Reduction with titanium dioxide Tronox® R-KB-2 (1 : 5)	
			Test method Nr. 009 vom 2001- 01-02 ⁴¹	
	min	max	min	max
ΔL^*	-0.5	0.5		
Δa^*	-0.8	0.8	-0.6	0.6
Δb^*	-1.0	1.0	-1.0	1.0
ΔE_{ab}^*		1.2		1.2
Relative tinting strength [%]			95	105

Specification

Technical Data	min	max	
water-soluble content [%]		0.5	as per DIN EN ISO 787-8:1995
Sieve residue (0.045 mm sieve) [%]		0.05	as per DIN 53195:1990
pH value	3.5	7.5	as per DIN EN ISO 787-9:1995

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Informative technical data (guide values)

			Test method
α - FeOOH Content [%] ⁵³	>	71.9	information about the determination of iron oxide ⁴¹
Al ₂ O ₃ Content [%]	<	20	as per DIN 55 913-2:1972
Loss on ignition at 1000 °C, 0.5 h [%] ³	<	16	similar to DIN 55 913-2:1972
Particle shape		acicular	Electron micrographs
Predominant particle size [µm]		0.1 x 0.7	Electron micrographs
Oil absorption [g/100 g]	~	50	as per DIN EN ISO 787-5:1995
Tamped density [g/ml]		0.4 - 0.8	as per DIN EN ISO 787-11:1995
Heat stability (in plastics) [°C]	~	260	as per DIN EN 12 877-2:2000
Density [g/ml]	~	4.0	as per 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

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.

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

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. The safety data sheet should be observed. This contains information on handling, product safety and ecology.

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Information concerning European food contact regulations (not specified)

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

General remark

As the food contact regulation 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 (migration resp. extraction limits, e.g.)

European Union (Council of Europe)	Resolution AP (89) 1
Germany	Recommendation IX of the Federal Institute for Risk Assessment (BfR) dated 1994.06.01.
Belgium	Koninklijk Besluit dated 11.5.1992; Warenwetgeving (1), aanvulling nr. 18 - September 1992
France	Circulaire 176 dated 2.12.1959, published in the Journal Officiel of 30.12.1959 incl. amendments.
Netherlands	Warenwet/Regeling Verpakkingen - en gebruiksartikelenbesluit; Uitvoeringsvoorschriften CIII-55, entered into force on 21.8.1991. As well as defining the content of soluble heavy metals in pigments, this regulation specifies maximum permissible migration values for the pigmented articles.
United Kingdom	Plastics for food contact applications, a code of practice for safety in use: BPF in connection with BIBRA, revised edition 1986. Like BfR Recommendation IX, this code does not have the force of law. However, processors view it as binding.
Italy	Decreto Ministeriale dated 21.3.1973, published in Gazzetta Ufficiale No. 104 of 20.4.1973; last amendment in Decreto Ministeriale No. 338 of 22.7.98.
Spain	Resolucion dated 4.1L1982 (BOE 282 of 24.11.1982) in accordance with Article 5 of Royal Decree 211/1992 of March 5, 1992. All colorants are permitted which conform with the migration values defined in Appendix III of the Resolucion. Pigments used in foodcontact applications must be notified to the Health Ministry. All Bayferrox pigments which satisfy BgVV Recommendation IX can be used in Spain.

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

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

General remark

As the food contact regulation 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 (migration resp. extraction limits, e.g.)

Australia	Australian Standard 2070.6 (1984)
USA	According to § 178.3297 (Colorants for Polymers)
Japan	Complies with JHOSPA*-Positive list for Colorants in plastics and other purity requirements * (JHOSPA = Japan Hygienic Olefin and Styrene Plastics Association)

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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
Philipines: PICCS	Japan: METI	Korea: ESL	China: IECSC	Taiwan: NECSI

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,
Fax +49-2151-88-9599-4139, mailto: ipg.product-information@lanxess.com

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