

48320 Iron Oxide Brown 640, medium

Product Information

Type:	Brown pigment
Delivery form:	Powder
Chemical class:	Synthetic iron oxide
Color Index:	Pigment Red 101 (77491) Pigment Black 11 (77499)
CAS No.:	1309-37-1, 1317-61-9
REACH:	All components are registered

Specification

Color values and tinting strength

	<u>min.</u>	<u>max.</u>	<u>Test method</u>
Binder: test paste based on a non drying alkyd resin			
Full shade			No. 001
ΔL^*	-0.5	0.5	
Δa^*	-1.2	1.2	
Δb^*	-1.3	1.3	
ΔE_{ab}^*		1.5	

Reduced shade with titanium dioxide (1:5)

Color values after matching of the tinting strength parameter Y, d.h. $\Delta L^*=0$			
Δa^*	-1.2	1.2	
Δb^*	-1.3	1.3	
ΔE_{ab}^*		1.5	

Binder: Barytes

Relative tinting strength (%)	95	105	No. 003
-------------------------------	----	-----	---------

Technical Data:

	<u>min.</u>	<u>max.</u>	<u>Test method</u>
Water-soluble content (%)		0.5	DIN EN ISO 787-3:2000
Sieve residue (0.045-mm-sieve) (%)		0.1	DIN EN ISO 787-7:2009
pH-value	5	8	DIN EN ISO 787-9:1995

Informative Technical Data (standard values)

		<u>Test method</u>
Iron oxide Content (%)	> 98	
Loss on ignition at 1000°C, 0.5h (%)	< 3.0	DIN 55913-2:1972
Moisture content (after production) (%)	< 2.5	DIN EN ISO 787-2 :2021
Particle shape	irregular	Electron microscope
Predominant particle size (µm)	0.1 - 0.6	Electron microscope
Oil absorption (g/100 g)	21	DIN EN ISO 787-5:1995
Tamped density (g/ml)	0.8 – 1.2	DIN EN ISO 787-11:1995
Density (g/ml)	4.5	DIN EN ISO 787-10:1995

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.

Maximum storage temperature:

During storage, temperatures above 80°C are to be avoided since irreversible changes in the color of the pigment can occur.

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.

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 information contained in the safety data sheet must be observed. This contains information on handling, product safety and ecology.

Information concerning Food Contact Regulations

This product complies with the regulatory requirements listed hereafter or may be used in accordance with those.

Remarks:

We can only refer to regulations dealing directly with pigments or colorants. The compliance with laws and regulations dealing with the finished article lies completely in the responsibility of the manufacturer of those articles.

Council of Europe:	Resolution AP (89) 1 on the use of colorants in plastic materials coming into contact with food
Germany:	BfR IX Empfehlung IX des Bundesinstituts für Risikobewertung (BfR) vom 01.06.2019
France:	Cirulaire n°176 consolidée du 2 décembre 1959 modifiée relative aux pigments et colorants des matières plastiques et emballages.
Italy:	Decreto Ministeriale des 21/03/1973. Disciplina igienica degli imballaggi, recipienti, utensil, desinati a venire in contatto con la sostanza alimentare o con sostanze d'uso personale.
Netherlands:	Warenwetregeling verpakkingen en gebruikartikelen: Regelung von de Minister van Volksgezondheid, Welzijn van 14 maart 2014, kenmerk 328583-117560-VGP, houdende vaststelling van de Warenwetregeling verpakkingen en gebruiksartikelen die in contact komen met levensmiddelen.
Spain:	Real Decreto 847/2011, de 17 de junio, por el uso que se establece la lista positiva de sustancias permitidas para la fabricación de materiales poliméricos destinados a entrar en contacto con los alimentos.
Switzerland:	817.023.21. Verordnung des EDI über Materialien und Gegenstände, die dazu bestimmt sind, mit Lebensmitteln in Berührung zu kommen (Bedarfsgegenständeverordnung) vom 16. Dezember 2016 (Stand am 1. Dezember 2019)
Australia:	AS 2070-1999 Plastic materials for food contact use
Brazil:	RDC N° 52 Dispõe sobre corantes em embalagens e equipamentos plásticos destinados a estar em contato com alimentos.
China:	Yellow iron oxides listed in GB 9685-2016 with FCA numbers 0460 & 0461. For detailed information about limitations itself refer to the standard itself.



Japan:	JHOSPA This product complies with Japanese Food sanitation law amended in June 2020. As there is no specific positive list for pigments the JHOSPA list for pigments remains valid until further announcement.
MERCOSUR:	GMC/RES. N° 15/10 Reglamento técnico Mescosor sobre colorantes en envases y equipamientos plásticos destinados a estar en contacto con alimentos
USA:	FDA 21 §178.3297 (Colorants for Polymers)

Status of Registration

The components of this product are listed in the following inventories:

EINECS (Europe), TSCA (USA), DSL (Canada), AICS (Australia), NZIoC (New Zealand)
PICCS (Philippines), ENCS + ISHL (Japan), ECL (Korea), IECSC (China), NECSI (Taiwan)