

48400 Iron Oxide Black 318

Product Information

Type:	Black pigment
Delivery form:	Powder
Chemical class:	Synthetic iron oxide Fe ₃ O ₄
Color Index:	Pigment black 11 (77499)
CAS No:	1317-61-9
REACH Reg. No.:	01-2119457646-28

Specified Color Data

Color values and tinting strength

	min.	max.	Test method
Binder: test paste based on			
Reduced shade with titanium dioxide (1:5)			No. 001
Color values after matching of the tinting strength parameter Y, d.h. $\Delta L^*=0$			
Δa^*	-0.7	0.7	
Δb^*	-0.9	0.9	
ΔE_{ab}^*		1.0	

Binder: Barytes

Relative tinting strength (%)	95	105	No. 003
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Technical Data:

	min.	max.	Test method
Water-soluble content (%)		1.0	similar to DIN EN ISO 787-3:2000
Sieve residue (0.045-mm-sieve) (%)		0.1	DIN EN ISO 787-7:2009
pH value	4.0	8.0	DIN EN ISO 787-9:1995

Informative Technical Data (standard values)

		Test method
Content Fe ₂ O ₃	> 96.5 %	
Loss on ignition at 1000°C, 0.5h	< 5 %	DIN 55 913-2:1972
Moisture content (after production)	< 2.5 %	DIN EN ISO 787-2:1995
Particle shape	spherical	Electron microscope
Predominant particle size (µm)	0.2	Electron microscope
Oil absorption (g/100 g)	21	DIN EN ISO 787-5:1995
Tamped density (g/ml)	0.8 - 1.2	similar to DIN EN ISO 787-11:1995
Density (g/ml)	4.6	similar to DIN EN ISO 787-10:1995
Specific surface area	11 m ² /g	

Transport and Storage

Protect against weathering. Store in a dry place and avoid extreme fluctuations in temperature.

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

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 date of manufacture we are able to ensure compliance with this specification, provided the material has been stored as stated above and the packaging material 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 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.
France:	Circulaire no. 176 consolidée du 2 décembre 1959 modifiée relative aux pigments et colorants des matières plastiques et emballages.
Germany:	BfR IX Empfehlung IX des Bundesinstituts für Risikobewertung (BfR) vom 01.06.2015
Italy:	Decreto Ministeriale del 21/03/1973 Disciplina igienica degli imballaggi, recipienti, utensili, destinati a venire in contatto con le sostanze alimentare o con sostanze d'uso personale.
Netherlands:	Warenwetregeling verpakkingen en gebruiksartikelen: Regelung van de Minister von Volksgezondheit, Wielzjin van 14 maart 2014, kenmark 328583-117560-VGP, houdende vaststelling van de Warenwetregeling verpakkingen en gebruiksartikelen die in contact komen met levensmiddelen.
Spain:	Real Dicroto 847/2011 de 17 de junio, por el que es establece la lista positiva de sustancias permitidas para la fabricación de materialias poliméricos destinados a entrar en contacto con los alimentos.
Schwitzerland:	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 No. 52 Dispõe sobre corantes em embalagens e equipamentos plásticos destinados a estar em contato com alimentos.
China:	Schwarze Eisenoxide sind in GB 9685-2016 mit der FCA Nummer 1161 gelistet. Gegenenfalls vorhandene Beschränkungen finden sie im Regelwerk selbst.



- Japan: JHOSPA
Dieses Produkt erfüllt die Anforderungen des japanischen Lebensmittelgesetzes, das zuletzt im Juni 2020 novelliert wurde. Da es derzeit keine spezifischen Positivlisten für Pigmente gibt behält die JHOSPA Liste bis auf weiteres ihre Gültigkeit.
- MERCOSUR: GMC/RES. No. 15/10
Reglamento técnico mercosur sobre colorantes en envases y equipamientos plásticos destinados a estar en contacto con alimentos.
- USA: FDA 21 CFR § 178.3297
(Colorants for polymers)

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: METI	Korea: ECL	China: IECSC	Taiwan: NECSI