



Technical Data Sheet

CATHAYXP™ HP222

Version 20/06/2025

Synthetic Iron Oxides

Page 1/2

Chemical Name*	CAS Number*	EINECS Number*	Composition*
Iron(III) Oxide	1309-37-1	215-168-2	Fe ₂ O ₃

* Primary Composition(s)

Description: Synthetic Iron Oxides from Oxerra are high-quality chemicals suitable for a wide range of applications. CATHAYXP™ HP222 is a special range of technical iron oxide with high content of iron oxide tailor made for demanding applications

Physical & Chemical Properties

Property	Units	Result	Method
Appearance	-	Red Powder	
Chemical Composition	-	Fe ₂ O ₃	
Iron Oxides Content as Fe ₂ O ₃	%	≥97	DIN 55913-2
Specific Surface Area	m ² /g	≤9	ISO9277
Chromium Content as Cr	ppm	≤1000	ICP-MS
Sulphur Content as S	ppm	≤99	Ion Chromatography
Chloride Content as Cl	ppm	≤99	Ion Chromatography



DISCLAIMER

This information is given in good faith to the best of our current reasonable knowledge, taking into consideration current status of technology as generally applied in the industry. **NOTHING IN THIS COMMUNICATION IS (OR SHOULD BE TAKEN AS) A WARRANTY (EXPRESS OR IMPLIED). NO REPRESENTATION, ASSURANCE OR UNDERTAKING IS MADE. NO LIABILITY IS OR WILL BE ACCEPTED BY OXERRA IN RELATION TO THE ADEQUACY, ACCURACY, COMPLETENESS, REASONABLENESS OF THIS COMMUNICATION. ALL AND ANY SUCH LIABILITY IS EXPRESSLY DISCLAIMED. IN ALL CASES IT IS YOUR RESPONSIBILITY TO DETERMINE THE APPLICABILITY OF THE INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF THE PRODUCTS DESCRIBED FOR ANY PARTICULAR PURPOSE.**

Oxerra products are provided only for manufacturing, processing, formulation, treatment and other such activities. Unless otherwise expressly stated in this document or a valid safety data sheet, Oxerra products must not be used, resold, distributed, transferred, or otherwise disposed of in (or in each case where intended to be used in) any applications or process in: a) which lead stabilizers/stabilized systems are used where the end product is rigid pvc; b) food; c) cosmetics; d) pharmaceuticals; or e) medical. Nothing in this disclaimer or otherwise limits claims in respect of death or personal injury caused by our negligence. You have full responsibility to use products consistent with safety and technical data sheets. Once a Oxerra product is within your custody/control, you shall have full responsibility for and liability arising out of its storage, handling, transportation, sale, use, reuse, recycling and/or disposal, and of any derivative product, co-product, by-product or waste product therefrom, including the use of any such product alone or in combination with other substances, and compliance with any laws or regulations relating thereto. This is not: a) a license under any intellectual property right of any entity; or b) a recommendation or authorization to action that infringes any intellectual property right. Unless otherwise agreed in writing and signed by the parties, all sales are subject to the Oxerra standard terms and conditions of sale. Reference to Oxerra includes any entity that it directly controls, is controlled by, or is under common control with it, and their employees, officers, agents, and distributors. All the above applies to this document and anything else made available to you in any form or medium (written or verbal).

December - 2024

Technical Data Sheet

Version 1/07/2025

CATHAYXP™

HP333

Product Information

<i>C.I. Pigment Reference*</i>	<i>Constitution Number*</i>	<i>CAS No.*</i>	<i>EINECS No.*</i>	<i>Composition*</i>
Pigment Red 101	77491	1309-37-1	215-168-2	Fe ₂ O ₃

* Primary colorant (s)

Description: Red Iron Oxides from Oxerra are high-quality chemicals suitable for a wide range of applications. CATHAYXP™ HP333 is a special range of technical iron oxide with high content of iron oxide tailor made for demanding applications

Physical & Chemical Properties

<i>Property</i>	<i>Units</i>	<i>Result</i>	<i>Method</i>
Appearance	----	Red Powder	ISO 787-1
Particle Shape	----	Spherical	T.E.M.
Specific Gravity	gr/ml	5.1-5.2	ISO 787-10
Tapped Density	kg/m ³	1300-1500	ISO 787-11
Iron Content (as Fe ₂ O ₃)	% (w/w)	≥99	BS 1014
Water soluble salts	% (w/w)	≤0.3	ISO 787-3
Sieve Residue 325 mesh	% (w/w)	≤0.1	ISO 787-7
Residual moisture	% (w/w)	≤1.0	ISO 787-2
Oil Absorption	gr/100gr	15-20	ISO 787-5
Hegman Fineness	----	≥3	ASTM D 1210

Colouristic Properties

<i>Property</i>	<i>Results</i>		<i>Method</i>
Mass Tone	Minium	Maximum	
ΔE	-	1.5	ISO 7724-2
ΔL	-1.0	+1.0	
Δa	-1.0	+1.0	
Δb	-1.0	+1.0	
Tinting Strength ^a	95%	105%	ISO 8781-1

^a1:4 reduction with TiO₂ pigment.

Packaging & Shelf-life

- 25 kg paper bags. 1000 kg supersacs.
- 10 years after reception, in its original package, sealed, indoor and at temperature <40°C. It is recommended to use the product in rotation on a first-in first-out basis.

DISCLAIMER

This information is given in good faith to the best of our current reasonable knowledge, taking into consideration status of technology as generally applied in the industry. NOTHING IN THIS COMMUNICATION IS (OR SHOULD BE TAKEN AS) A WARRANTY (EXPRESS OR IMPLIED). NO REPRESENTATION, ASSURANCE OR UNDERTAKING IS MADE. NO LIABILITY IS OR WILL BE ACCEPTED BY OXERRA IN RELATION TO THE ADEQUACY, ACCURACY, COMPLETENESS, REASONABLENESS OF THIS COMMUNICATION. ALL AND ANY SUCH LIABILITY IS EXPRESSLY DISCLAIMED. IN ALL CASES IT IS YOUR RESPONSIBILITY TO DETERMINE THE APPLICABILITY OF THE INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF THE PRODUCTS DESCRIBED FOR ANY PARTICULAR PURPOSE. OXERRA products are provided only for manufacturing, processing, formulation, treatment and other such activities. Unless otherwise expressly stated in this document or a valid safety data sheet, OXERRA products must not be used, resold, distributed, transferred, or otherwise disposed of in (or in each case where intended to be used in) any applications or process in: a) which lead stabilizers/stabilized systems are used where the end product is rigid pvc; b) food; c) cosmetics; d) pharmaceuticals; or e) medical. Nothing in this disclaimer or otherwise limits claims in respect of death or personal injury caused by our negligence. You have full responsibility to use products consistent with safety and technical data sheets. Once a OXERRA product is within your custody/control, you shall have full responsibility for and liability arising out of its storage, handling, transportation, sale, use, reuse, recycling and/or disposal, and of any derivative product, co-product, by-product or waste product therefrom, including the use of any such product alone or in combination with other substances, and compliance with any laws or regulations relating thereto. This is not: a) a license under any intellectual property right of any entity; or b) a recommendation or authorization to action that infringes any intellectual property right. Unless otherwise agreed in writing and signed by the parties, all sales are subject to the OXERRA standard terms and conditions of sale. Reference to OXERRA includes any entity that it directly controls, is controlled by, or is under common control with it, and their employees, officers, agents, and distributors. All the above applies to this document and anything else made available to you in any form or medium (written or verbal).

November – 2024

CATHAYXP™ is a trademark of OXERRA in one or more, but not all, countries.

Technical Data Sheet

Version 1/07/2025

CATHAYXP™

HP999

Product Information

C.I. Pigment Reference*	Constitution Number*	CAS No.*	EINECS No.*	Composition*
Pigment Black 11	77499	1317-61-9 / 12227-89-3	215-277-5 / 235-442-5	Fe ₃ O ₄

* Primary colorant (s)

Description: Black Iron Oxides from Oxerra are high-quality chemicals suitable for a wide range of applications. CATHAYXP™ HP999 is a special range of technical iron oxide with high content of iron oxide tailor made for demanding applications

Physical & Chemical Properties

Property	Units	Result	Method
Appearance	----	Black Powder	ISO 787-1
Particle Shape	----	Cubic (spinel)	T.E.M.
Specific Gravity	gr/ml	5.1-5.2	ISO 787-10
Tapped Density	kg/m ³	2000-3000	ISO 787-11
Iron Content (as Fe ₃ O ₄)	% (w/w)	≥ 95	BS 1014
Water soluble salts	% (w/w)	≤ 1.0	ISO 787-3
pH		6-10	ISO 787-9
Specific Surface Area BET	m ² /gr	≤ 3	ISO 9277
Particle size d50	µm	~20	d50 from particle size distribution
Residual moisture	% (w/w)	≤ 1.0	ISO 787-2
Oil Absorption	gr/100gr	≤ 8	ISO 787-5
Trace Metal Content	ppm	As ≤ 2 Cr ≤ 100 Hg ≤ 1 Ca ≤ 500 Pb ≤ 5	ICP/MS
Anion content	ppm	F ≤ 300 Cl ≤ 100 SO ₄ ≤ 100	Ion chromatography

Packaging & Shelf-life

- 25 kg paper bags. 1000 kg supersacs.
- 10 years after reception, in its original package, sealed, indoor and at temperature <40°C. It is recommended to use the product in rotation on a first-in first-out basis.

DISCLAIMER

This information is given in good faith to the best of our current reasonable knowledge, taking into consideration status of technology as generally applied in the industry. NOTHING IN THIS COMMUNICATION IS (OR SHOULD BE TAKEN AS) A WARRANTY (EXPRESS OR IMPLIED). NO REPRESENTATION, ASSURANCE OR UNDERTAKING IS MADE. NO LIABILITY IS OR WILL BE ACCEPTED BY OXERRA IN RELATION TO THE ADEQUACY, ACCURACY, COMPLETENESS, REASONABLENESS OF THIS COMMUNICATION. ALL AND ANY SUCH LIABILITY IS EXPRESSLY DISCLAIMED. IN ALL CASES IT IS YOUR RESPONSIBILITY TO DETERMINE THE APPLICABILITY OF THE INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF THE PRODUCTS DESCRIBED FOR ANY PARTICULAR PURPOSE. OXERRA products are provided only for manufacturing, processing, formulation, treatment and other such activities. Unless otherwise expressly stated in this document or a valid safety data sheet, OXERRA products must not be used, resold, distributed, transferred, or otherwise disposed of in (or in each case where intended to be used in) any applications or process in: a) which lead stabilizers/stabilized systems are used where the end product is rigid pvc; b) food; c) cosmetics; d) pharmaceuticals; or e) medical. Nothing in this disclaimer or otherwise limits claims in respect of death or personal injury caused by our negligence. You have full responsibility to use products consistent with safety and technical data sheets. Once a OXERRA product is within your custody/control, you shall have full responsibility for and liability arising out of its storage, handling, transportation, sale, use, reuse, recycling and/or disposal, and of any derivative product, co-product, by-product or waste product therefrom, including the use of any such product alone or in combination with other substances, and compliance with any laws or regulations relating thereto. This is not: a) a license under any intellectual property right of any entity; or b) a recommendation or authorization to action that infringes any intellectual property right. Unless otherwise agreed in writing and signed by the parties, all sales are subject to the OXERRA standard terms and conditions of sale. Reference to OXERRA includes any entity that it directly controls, is controlled by, or is under common control with it, and their employees, officers, agents, and distributors. All the above applies to this document and anything else made available to you in any form or medium (written or verbal).

November – 2024

CATHAYXP™ is a trademark of OXERRA in one or more, but not all, countries.