

# Technical Data Sheet

## VC YELLOW 318

### Description

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

### Specified Color Data

<b>Colour values and tinting strength</b>		VC YELLOW 318			
Standard	VC YELLOW 318				
Year	2015				
<b>Binder:</b> Test paste based on a non drying alkyd resin	<b>Full shade</b>		<b>Reduction <sup>45</sup> with titanium dioxide (1:5)</b>		<b>Test method No. 001 <sup>41</sup></b>
	<b>min</b>	<b>max</b>	<b>min</b>	<b>max</b>	
$\Delta L^*$	-0.6	0.6			
$\Delta a^*$	-1.0	1.0	-1.0	1.0	
$\Delta b^*$	-1.0	1.0	-1.0	1.0	
$\Delta E^*_{ab}$		1.5		1.5	
<b>Binder:</b> Barytes Relative tinting strength [%]			95	105	<b>Test method No. 003 <sup>41</sup></b>

### Specified Technical Data

<b>Technical Data</b>	<b>min</b>	<b>max</b>	<b>Test method</b>
Sieve residue (0.045 mm sieve) [%]		0.30	DIN EN ISO 787-7:2009
pH value	3.5	7.0	DIN EN ISO 787-9:1995

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### Informative Technical Data (guide values)

			Test method
$\alpha$ - FeOOH content [%] <sup>53</sup>	>	99.1	Information about the determination of iron oxide <sup>41</sup>
Loss on ignition at 1000 °C, 0.5 h [%] <sup>3</sup>	<	15.0	DIN 55913-2:1972
Moisture content (after production) [%]	<	1.0	DIN EN ISO 787-2:1995
Particle shape		acicular	Electron micrographs
Predominant particle size [ $\mu$ m]		0.1 x 0.8	Electron micrographs
Water-soluble content [%]	<	0.5	similar to DIN EN ISO 787-3:2000
Oil absorption [g/100 g]	~	32	DIN EN ISO 787-5:1995
Tamped density [g/ml]	~	0.4	similar to DIN EN ISO 787-11:1995
Density [g/ml]	~	4.0	DIN EN ISO 787-10:1995

<sup>3</sup> Iron oxide yellow pigments contain a large amount of chemically bound water that is also recorded

<sup>41</sup> Obtainable from LANXESS Deutschland GmbH, Business Unit Inorganic Pigments, [mailto: ipg.product-information@lanxess.com](mailto:ipg.product-information@lanxess.com)

<sup>45</sup> Colour values after matching of the tinting strength parameter Y, i.e.  $\Delta L^*=0$

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



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### Packaging

Grades are delivered in different packaging materials. Please ask your local contact about the packaging for the grade in question or send an enquiry mailto: [ipg.product-information@lanxess.com](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 (dehydration 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:	<p>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:</p> <p>All kinds of bags (Paper and PE) ..... 5 years All kinds of Bulk bag ..... 3 years</p> <p>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.</p>



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### Safety

Classification	<p>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.</p> <p>In countries outside the EU, compliance with the respective national legislation concerning the classification, packaging, labelling and transport of dangerous substances must be ensured.</p>
Additional Information	<p>The safety data sheet should be observed. This contains information on handling, product safety and ecology.</p> <p>The safety data sheet is available at <a href="http://www.bayferrox.com">www.bayferrox.com</a>.</p>



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### 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: ENCS + ISHL	Korea: ECL	China: IECSC	Taiwan: NECSI