

## Product Information

### Bayferrox® 4100/402

#### Description

|                        |   |
|------------------------|---|
| Type                   | Red pigment   |
| Delivery form          | Powder  |
| Chemical class         | Synthetic iron oxide $\alpha$ - $\text{Fe}_2\text{O}_3$ |
| Colour Index           | Pigment red 101 (77491)                                 |
| CAS-No.                | 1309-37-1   |
| REACH registration no. | 01-2119457614-35-0000                                   |

#### Specified Color Data

| Colour values and tinting strength              |                    |     |   |     |                       |
|---|--------------------|-----|---|-----|-----------------------|
| Standard  | Bayferrox 4100/402 |     |   |     |                       |
| Year  | 1999               |     |   |     |                       |
| Binder:   | Full shade         |     | Reduction <sup>45</sup><br>with titanium dioxide<br>(1:5) |     | Test method           |
| Test paste based on a non drying<br>alkyd resin | min                | max | min   | max | No. 001 <sup>41</sup> |
| $\Delta L^*$                                    | -0.5               | 0.5 |   |     |                       |
| $\Delta a^*$                                    | -0.8               | 0.8 | -0.8  | 0.8 |                       |
| $\Delta b^*$                                    | -0.8               | 0.8 | -0.8  | 0.8 |                       |
| $\Delta E^*_{ab}$                               |                    | 1.0 |   |     | 1.0                   |
| Relative tinting strength [%]                   |                    |     | 95  | 105 |                       |

#### Specified Technical Data

| Technical Data                     | min | max  | Test method                         |
|------------------------------------|-----|------|-------------------------------------|
| Water-soluble content [%]          |     | 0.5  | similar to<br>DIN EN ISO 787-3:2000 |
| Sieve residue (0.045 mm sieve) [%] |     | 0.05 | DIN EN ISO 787-7:2009               |
| pH value                           | 5.0 | 7.0  | DIN EN ISO 787-9:1995               |

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### Informative Technical Data (guide values)

|   |   |           | <b>Test method</b>  |
|---|---|-----------|---|
| $\alpha$ - Fe <sub>2</sub> O <sub>3</sub> content [%] <sup>53</sup> | > | 98.9      | Information about the determination of iron oxide <sup>41</sup> |
| Loss on ignition at 1000 °C, 0.5 h [%]                              | < | 4.0       | DIN 55913-2:1972  |
| Moisture content (after production) [%]                             | < | 1.0       | DIN EN ISO 787-2:1995   |
| Particle shape  |   | spherical | Electron micrographs  |
| Predominant particle size [µm]                                      | ~ | 0.1       | Electron micrographs  |
| Oil absorption [g/100 g]  | ~ | 22        | DIN EN ISO 787-5:1995   |
| Tamped density [g/ml]   | ~ | 1.0       | similar to  |
|   |   |           | DIN EN ISO 787-11:1995  |
| Density [g/ml]  | ~ | 5.0       | DIN EN ISO 787-10:1995  |

<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.

## Bayferrox® 4100/402

### 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

|  |   |
|--|---|
| 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 80 °C must be avoided as an alteration (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<br/>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> |

### 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.de">www.bayferrox.de</a>.</p>   |

## Bayferrox® 4100/402

### Status of Registration (not specified)

| The components of this product are listed on the following inventories: |                |                |                    |                       |
|---|----------------|----------------|--------------------|-----------------------|
| Europe:<br>EINECS   | USA:<br>TSCA   | Canada:<br>DSL | Australia:<br>AICS | New Zealand:<br>NZIOC |
| Philippines:<br>PICCS   | Japan:<br>METI | Korea:<br>ECL  | China:<br>IECSC    | Taiwan:<br>NECSI      |