

## Technical Data Sheet

### COLORTHERM® Green GN

#### Description

|                |   |
|----------------|---|
| Type           | Green pigment                                 |
| Delivery form  | Powder  |
| Chemical class | Chromium oxide Cr <sub>2</sub> O <sub>3</sub> |
| Colour Index   | Pigment Green 17 (77288)                      |
| CAS-No.        | 1308-38-9                                     |
| REACH          | 01-2119433951-39                              |

#### Specified Color Data

| Colour values and tinting strength                      |      | COLORTHERM Green GN |     |   |     |                       |
|---|------|---------------------|-----|---|-----|-----------------------|
| Standard  | Year | Full shade          |     | Reduction with titanium dioxide (1:5) <sup>45</sup> |     | Test method           |
| Binder:<br>Test paste based on a non drying alkyd resin |      | min                 |     | min   |     | No. 001 <sup>41</sup> |
| Δ L*  |      | -0.5                | 0.5 |   |     |                       |
| Δ a*  |      | -0.6                | 0.6 | -0.6  | 0.6 |                       |
| Δ b*  |      | -0.6                | 0.6 | -0.6  | 0.6 |                       |
| Δ E* <sub>ab</sub>                                      |      |                     | 1.0 |   | 1.0 |                       |
| Relative tinting strength [%]                           |      |                     |     | 95  | 105 |                       |

#### Specified Technical Data

| Technical Data                     | min | max  |                       |
|------------------------------------|-----|------|-----------------------|
| Water soluble content [%]          |     | 0.3  | DIN EN ISO 787-3:2000 |
| Water soluble Cr(VI) [ppm]         |     | 5    | PVS 103 <sup>41</sup> |
| Sieve residue (0.045 mm sieve) [%] |     | 0.06 | DIN EN ISO 787-7:2009 |

## **COLORTHERM® Green GN**

### **Informative Technical Data (guide values)**

|  |   |            |  | <b>Test method</b>     |
|--|---|------------|--|------------------------|
| Cr <sub>2</sub> O <sub>3</sub> content [%] | ~ | 99         |  | X-ray fluorescence     |
| Loss on ignition at 1000 °C, 0.25 h [%]    | < | 0.4        |  | DIN ISO 4621:1988      |
| Particle shape                             |   | spherical  |  | Electron micrographs   |
| Predominant particle size [µm]             | ~ | 0.3        |  | Electron micrographs   |
| pH value                                   |   | 5 - 7      |  | DIN EN ISO 787-9:1995  |
| Oil absorption [g/100 g]                   | ~ | 11         |  | DIN EN ISO 787-5:1995  |
| Tamped density [g/ml]                      |   | 0.8 - 1,2, |  | DIN EN ISO 787-11:1995 |
| Heat stability [°C]                        | > | 300        |  | DIN EN 12877-2:1999    |
| Density [g/ml]                             | ~ | 5.2        |  | DIN EN ISO 787-10:1995 |

<sup>41</sup> Please use our contact form on the Internet at [www.bayferrox.com](http://www.bayferrox.com) for more information.

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

## **COLORTHERM® Green GN**

### **Packaging**

25-kg-bag  
1000-kg-bulk bag

### **Transport and Storage**

|  |   |
|--|---|
| General storage conditions:              | 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.   |
| 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> |
| <hr/>                                    |   |

### **Safety**

|                         |   |
|-------------------------|---|
| Classification          | 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.  |
| Additional information: | 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 safety data sheet should be observed. This contains information on handling, product safety and ecology. The safety data sheet is available at <a href="http://www.bayferrox.com">www.bayferrox.com</a> . |

## COLORTHERM® Green GN

### Information concerning food contact regulations

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

**Remark:**

We can only refer to regulations dealing directly with pigments or colourants. 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 | <b>Resolution AP(89)1</b><br>on the use of colourants in plastic materials coming into contact with food   |
| France            | <b>Circulaire n°176</b><br>consolidée du 2 décembre 1959 modifiée relative aux pigments et colorants des matières plastiques et emballages.  |
| Germany           | <b>BfR IX</b><br>Empfehlung IX des Bundesinstituts für Risikobewertung vom 1. Juni 2019  |
| Italy             | <b>Decreto Ministeriale del 21/03/1973</b><br>Disciplina igienica degli imballaggi, recipienti, utensili, destinati a venire in contatto con le sostanze alimentari o con sostanze d'uso personale.  |
| Netherlands       | <b>Warenwetregeling verpakkingen en gebruikartikelen:</b><br>Regeling van de Minister van Volksgezondheid, Welzijn van 14 maart 2014, kenmerk 328583-117560-VGP, houdende vaststelling van de Warenwetregeling verpakkingen en gebruikartikelen die in contact komen met levensmiddelen.                           |
| Spain             | <b>Real Decreto 847/2011,</b><br>de 17 de junio, por el que se establece la lista positiva de sustancias permitidas para la fabricación de materiales poliméricos destinados a entrar en contacto con los alimentos.   |
| Switzerland       | <b>817.023.21</b><br>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. Januar 2025)<br><br>Anlage 2: --<br>Anlage 9: AD (Verwendung als Additiv zugelassen)<br>Anlage 10: -- |
| Australia         | <b>AS 2070-1999</b><br>Plastic materials for food contact use  |
| Brazil            | <b>RDC N° 52</b><br>Dispõe sobre corantes em embalagens e equipamentos plásticos destinados a estar em contato com alimentos.  |
| China             | Chromium oxides are listed in <b>GB 9685-2016</b> with FCA number 0478. For detailed information about limitations please refer to the standard itself.  |
| Japan             | This product complies with <b>Japanese Food sanitation law</b> amended in June 2020. As there is no specific positive list for pigments the JHOSPA list for pigments remains valid until further announcement.   |
| MERCOSUR          | <b>GMC/RES. N° 15/10</b><br>REGLAMENTO TÉCNICO MERCOSUR SOBRE COLORANTES EN ENVASES Y EQUIPAMIENTOS PLÁSTICOS DESTINADOS A ESTAR EN CONTACTO CON ALIMENTOS   |

## COLORTHERM® Green GN

USA

**FDA 21 CFR § 178.3297**  
(Colorants for polymers)

## **COLORTHERM® Green GN**

### **Status of Registration (not specified)**

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

|                       |                       |                |                    |                       |
|-----------------------|-----------------------|----------------|--------------------|-----------------------|
| Europe:<br>EINECS     | USA:<br>TSCA-active   | Canada:<br>DSL | Australia:<br>AICS | New Zealand:<br>NZIoC |
| Philippines:<br>PICCS | Japan:<br>ENCS + ISHL | Korea:<br>ECL  | China:<br>IECSC    | Taiwan:<br>TCSI       |

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