



| PRODUCT DESCRIPTION       |                     |
|---------------------------|---------------------|
| Chemical Characterization | Chromium Iron Oxide |
| Color Index               | Pigment Brown 29    |
| C.I. No.                  | 77500               |
| CAS No.                   | 12737-27-8          |
| Relative Hiding Power [%] | ~ 1500              |

| PHYSICAL DATA                             |              |                           |
|---|--------------|---------------------------|
| Appearance                                | Brown Powder |                           |
| Density [g/cm <sup>3</sup> ]              | 4.8          | acc. to DIN EN ISO 787/10 |
| Bulk Density [g/cm <sup>3</sup> ]         | 0.4          | acc. to DIN EN ISO 787/11 |
| Tamped Density [g/cm <sup>3</sup> ]       | 0.7          | acc. to DIN EN ISO 787/11 |
| Oil Absorption [ml/100g]                  | 25           | acc. to DIN EN ISO 787/5  |
| Water Soluble Salts [%]                   | < 0.5        | acc. to DIN EN ISO 787/3  |
| Moisture [%]                              | < 0.5        | acc. to DIN EN ISO 787/2  |
| pH  | 8            | acc. to DIN EN ISO 787/9  |
| Sieve Residue on 45 µm [%]                | < 0.1        | acc. to DIN 53195         |
| Av. Primary Particle Size [µm]            | 0.2          | acc. to ISO 13320-1       |
| Total Solar Reflectance [%] <sup>5)</sup> | 28           | DIN EN ISO 410            |

| CHEMICAL INVENTORY LISTING STATUS  |  |
|--|--|
| All ingredients are listed in the following national chemical inventories:   |  |
| AICS (Australia), DSL (Canada), ECL (Korea), EINECS [Europe], IECSC [China], MITI [Japan], NZIOC (New Zealand), TSCA [USA] |  |

| FULL TONE  | REDUCTION   |
|--|---|
|  |  |

| FASTNESS PROPERTIES                         |     |              |
|---|-----|--------------|
| Heat Resistance [°C]                        | 700 | AA10/CIC/104 |
| Solvent Resistance <sup>1)</sup>            | 5   |              |
| Acid Resistance <sup>2)</sup>               | 5   |              |
| Alkali Resistance <sup>2)</sup>             | 5   |              |
| Light Fastness [Full Shade] <sup>3)</sup>   | 8   |              |
| Weather Fastness [Full Shade] <sup>4)</sup> | 5   |              |

| REGULATIONS                                   |               |
|---|---------------|
| Germany BfR recom. IX                         | compliant     |
| APME AP 89/1                                  | compliant     |
| USA (FDA) 21 CFR § 178.3297                   | not listed    |
| Toys Europe EN 71-3                           | not compliant |
| Toys USA ASTM F 963-03                        | not compliant |
| CONEG, EC 94/62                               | compliant     |
| ROHS, 2002/95/EC, 2005/618/EC                 | compliant     |
| End of Life Vehicles, 2000/53/EC, 2002/525/EC | compliant     |

| STANDARD PACKAGING                                      |
|---|
| - 25 kg Paper Bags                                      |
| - Different types of packaging are available on request |

1) Pigments were dipped into solvent. Assessment with Grey Scale according to DIN 54002. Rating: 1=severe, 5=none.

2) Pigments were dipped into hydrochloric acid (10%) or sodium hydroxide solution (10%). Rating: 1=poor, 5=excellent.

3) Light fastness was tested in an alkyd/melamine system. Assessment with Blue Wool Scale according to DIN 54003. Rating: 1=very poor, 8=outstanding.

4) Weathering fastness was tested in an waterborne acrylic resin system. Assessment with Grey Scale according to DIN 54001 after 2000h accelerated weathering (Arc Xenontest acc. to DIN EN ISO 11341-1-A, 1998). Rating: 1=poor, 5=very good.

5) Powder pellet

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