

# Cromophtal® Scarlet K 3540

(Old: Cromophtal® Scarlet RN)



|                           |  |
|---------------------------|--|
| <b>Chemical type</b>      | Azo condensation   |
| <b>CI Generic Name</b>    | Pigment Red 166  |
| <b>CI Constitution No</b> | 20730  |
| <b>Description</b>        | Semi-opaque yellow shade red with very good heat resistance in polyolefins, even at low concentrations. Suitable for PVC, polyolefins, PUR and PP fibers. Recommend for demanding indoor applications due to its good light fastness and hot light fastness. |
| <b>Preparations</b>       | Depending on the suitability of the pigment, mono-pigment preparations for PVC, polyolefin, elastomers and further polymers may be available. Please contact your local BASF sales representative.   |

## Properties

### Coloristic properties



Full shade  
over white  
0.10 % in PVC

Full shade  
over white  
0.50 % in PVC

White reduction  
1/3 ISD in PVC

|    |      |    |      |    |      |
|----|------|----|------|----|------|
| L* | 50.9 | L* | 45.2 | L* | 57.4 |
| a* | 58.6 | a* | 50.9 | a* | 50.5 |
| b* | 40.0 | b* | 33.3 | b* | 20.3 |
| C* | 71.0 | C* | 60.8 | C* | 54.4 |
| h  | 34.3 | h  | 33.2 | h  | 21.9 |

1/3 ISD at 1.0 % TiO<sub>2</sub> in HDPE: 0.20 %  
 1/3 ISD at 1.0 % TiO<sub>2</sub> in PVC: 0.18 %

**Physical properties**

|                  |                        |
|------------------|------------------------|
| Product form     | Powder                 |
| Density          | 1.58 g/cm <sup>3</sup> |
| Bulk density     | 0.19 kg/l              |
| Bulk volume      | 5.3 l/kg               |
| Specific Surface | 28.7 m <sup>2</sup> /g |

**Polymer suitability**

|           |   |            |   |
|-----------|---|------------|---|
| PVC       | ■ |            |   |
| LL / LDPE | ■ | HDPE       | ■ |
| PP        | ■ | PP fibers  | ■ |
| PA6       | ☒ | PA6 fibers | ☒ |
| PET       | ☒ | PES fibers | ☒ |
| PC        | ☒ | PMMA       | □ |
| PS        | □ | HIPS       | □ |
| ABS       | □ | SAN        | ☒ |
| Rubber    | ■ | PUR        | ■ |

■: Recommended    □: Limited suitability    ☒: Not recommended

If you need information on other polymers, please contact your local BASF representative.

**Technical performance**

For details regarding the test methods, please refer to the BASF Colorants for Plastics test methods overview or contact your local BASF representative.

**PVC-P**

|                                | Full shade | White reduction |
|--------------------------------|------------|-----------------|
| Pigment concentration          | 0.10 %     | 0.20 %          |
| TiO <sub>2</sub> concentration |            | 2.00 %          |
| Migration (GS)                 | 5          | nt              |
| Light fastness (BWS)           | 8          | 7               |
| Hot light fastness (GS)        | 5          | 4-5             |
| Weather resistance (GS) 3000 h | 4-5        | -               |
| 5000 h                         | 3-4        | -               |

nt: not tested

-: below limit of GS 3

**HDPE**

|                                 | Full shade | White reduction |
|---------------------------------|------------|-----------------|
| Pigment concentration           | 0.10 %     | 0.10 %          |
| TiO <sub>2</sub> concentration  |            | 1.00 %          |
| Heat resistance (°C) Limit DE 3 | 300        | 300             |
| Migration (GS)                  | 5          | nt              |
| Light fastness (BWS)            | 8          | 7               |
| Weather resistance (GS) 3000 h  | 3          | -               |
| 5000 h                          | -          | -               |

nt: not tested

-: below limit of GS 3

|                                     |            |
|-------------------------------------|------------|
| Warping                             | High       |
| Filter pressure value in PP (bar/g) | not tested |

**PMMA**

|                                 | <b>Full shade</b> |
|---------------------------------|-------------------|
| Pigment concentration           | 0.10 %            |
| Heat resistance (°C) Limit DE 3 | 280               |
| Migration (GS)                  | 5                 |
| Light fastness (BWS)            | 7-8               |

**PS**

|                                 | <b>Full shade</b> | <b>White reduction</b> |
|---------------------------------|-------------------|------------------------|
| Pigment concentration           | 0.10 %            | 0.10 %                 |
| TiO <sub>2</sub> concentration  |                   | 1.00 %                 |
| Heat resistance (°C) Limit DE 3 | 280               | 280                    |
| Migration (GS)                  | 5                 | nt                     |
| Light fastness (BWS)            | 7-8               | 7-8                    |

nt: not tested

**HIPS**

|                                 | <b>White reduction</b> |
|---------------------------------|------------------------|
| Pigment concentration           | 0.20 %                 |
| TiO <sub>2</sub> concentration  | 1.00 %                 |
| Heat resistance (°C) Limit DE 3 | 300                    |
| Migration (GS)                  | 5                      |
| Light fastness (BWS)            | 7                      |

**ABS**

|                                 | <b>Full shade</b> | <b>White reduction</b> |
|---------------------------------|-------------------|------------------------|
| Pigment concentration           | 0.20 %            | 0.20 %                 |
| TiO <sub>2</sub> concentration  |                   | 1.00 %                 |
| Heat resistance (°C) Limit DE 3 | 240               | 260                    |
| Migration (GS)                  | 5                 | nt                     |
| Light fastness (BWS)            | 7                 | 7-8                    |

nt: not tested

**Regulatory and Compliance status**

For details regarding the regulatory and compliance status, please refer to the respective product regulatory information sheets and food contact certificates.  
They are available upon request at [ed-psr@basf.com](mailto:ed-psr@basf.com).

**Note**

The descriptions, designs, data and information contained herein are presented in good faith, and are based on BASF's current knowledge and experience. They are provided for guidance only, and do not constitute the agreed contractual quality of the product or a part of BASF's terms and conditions of sale. Because many factors may affect processing or application/use of the product, BASF recommends that the readers carry out their own investigations and tests to determine the suitability of a product for its particular purpose prior to use. It is the responsibility of the recipient of product to ensure that any proprietary rights and existing laws and legislation are observed. No warranties of any kind, either expressed or implied, including, but not limited to, warranties of merchantability or fitness for a particular purpose, are made regarding products described or designs, data or information set forth herein, or that the products, descriptions, designs, data or information may be used without infringing the intellectual property rights of others. Any descriptions, designs, data and information given in this publication may change without prior information. The descriptions, designs, data and information furnished by BASF hereunder are given gratis and BASF assumes no obligation or liability for the descriptions, designs, data or information given or results obtained; all such being given and accepted at the reader's risk.

**Asia**

BASF East Asia Regional  
Headquarters Limited  
Dispersions and Pigments

45/F Jardine House  
No. 1 Connaught Place  
Hong Kong

phone: +852 2731 0111

[dispersions-pigments-asia@basf.com](mailto:dispersions-pigments-asia@basf.com)

**Europe, Africa, West Asia**

BASF SE  
Pigments

E-EDC/FK - J550  
67056 Ludwigshafen  
Deutschland

phone: +49 621 60 58262

[www.dispersions-pigments.basf.com](http://www.dispersions-pigments.basf.com)

**North America**

BASF Corporation

24710 West Eleven Mile Road  
Southfield, MI 48033  
USA

phone: 800-962-7829

[dpsolutions@basf.com](mailto:dpsolutions@basf.com)  
[basf.us/dpsolutions.com](http://basf.us/dpsolutions.com)

**South America**

BASF S.A.

Av. das Nações Unidas, 14.171,17o.  
andar, Morumbi  
04794-000 Sao Paulo  
Brazil

phone: +55 11 2039-3166

[packaging-sa@basf.com](mailto:packaging-sa@basf.com)