

MACROLEX® Red 5B FG

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|-----------------------------------|--|
| Colour Index | Part I Solvent Red 52 Part II 68210 |
| Chemical description | Anthraquinone dyestuff |
| Form supplied | powder |
| Shade | red with a blue cast |
| 1/3 Standard depth | 0.195% dyestuff (determined in GP-PS with 2% TiO ₂) |
| Density (23°C) | approx. 1.37 g/cm ³ |
| Bulk density | approx. 0.23 g/cm ³ (according to DIN ISO 787-11) |
| Melting point | approx. 280°C |
| Main fields of application | Transparent and opaque dyeing of PS, SAN, PMMA, PC, PET, ABS / PC blends, PA 6 and PA 6.6. |
| Storage stability | 60 months from delivery ex plant LANXESS Deutschland GmbH |

Solubility in g/l at temperature 23°C (approximate figures)

| Water | Acetone | Benzyl alcohol | Butyl acetate | Ethanol | Methyl methacrylate | Methylene chloride | Styrene (monomer) | Xylene |
|-----------|---------|----------------|---------------|---------|---------------------|--------------------|-------------------|--------|
| insoluble | 0.3 | 5.0 | 0.3 | 0.1 | 0,5 | 35 | 3.0 | 2.0 |

Heat stability in °C at 1/3 standard depth with 1% TiO₂ (ABS 4% TiO₂ and PS 2% TiO₂) evaluated according to DIN EN 12877; (approximate figures)

| PS | SB* | ABS | SAN | PMMA | PC | PA 6 | PA 6.6 | PET | PBT |
|-----|-----|-----|-----|------|-----|------|--------|-----|-----|
| 280 | 300 | 280 | 280 | 300 | 350 | 300 | 290 | 290 | 280 |

* For Styrene-butadiene block copolymer the use of this dye is not recommended.

Lightfastness 1/3 standard depth with 1% TiO₂ (PS 2% TiO₂) according to DIN EN ISO 4892-2; transparent coloration with 0.05% dye; evaluated with 8-step blue wool scale

| PC | | | PS | | | PMMA | | |
|------------------|-----------|-------------|------------------|-----------|-------------|------------------|-----------|-------------|
| Dye content in % | reduction | transparent | Dye content in % | reduction | transparent | Dye content in % | reduction | transparent |
| 0.100 | 4-5 | 7 | 0.195 | 3-4 | 7 | 0.100 | 4-5 | 7 |

Materials used for testing of Heat stability and Lightfastness:

| | | | |
|-----|-----------------------|---------|---------------------------|
| PS: | BASF Polystyrene 143E | PA 6: | LANXESS Durethan B30S |
| SB: | BASF Polystyrene 472C | PA 6.6: | LANXESS Durethan A30H 1.0 |



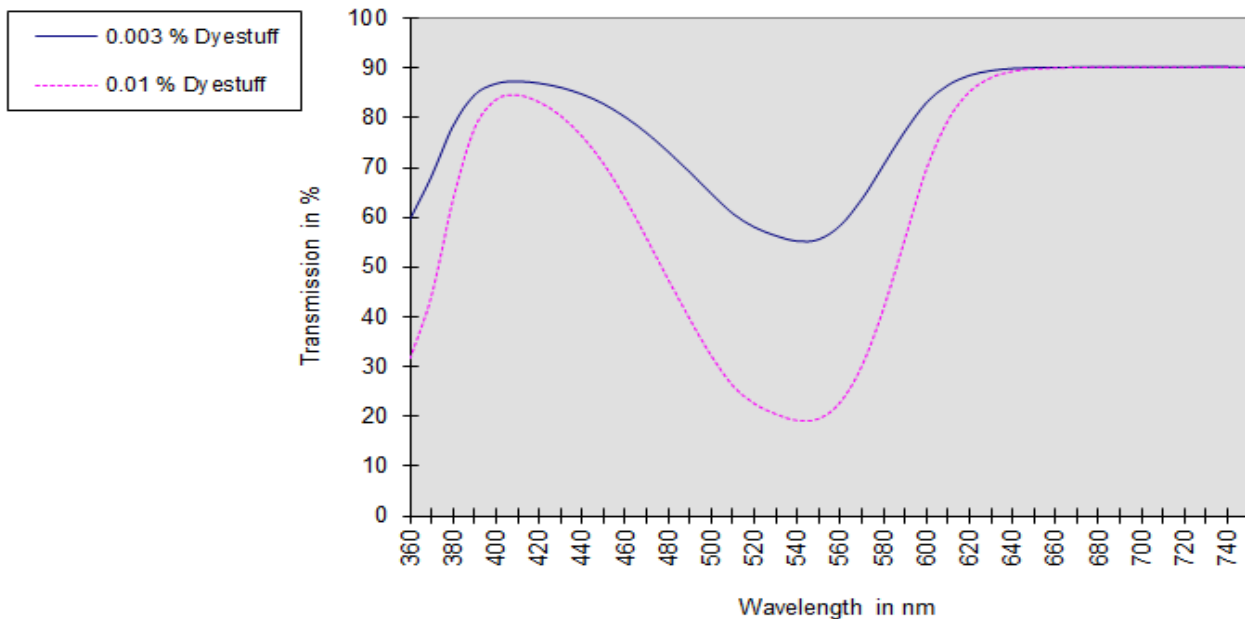
| | | | |
|-------|-------------------------------------|--------------------|--------------------------|
| ABS: | LANXESS Novodur P2X | PET: | Voridian 9921 W |
| SAN: | BASF Luran 368R | PBT: | LANXESS Pocan B1505 |
| PMMA: | Röhm Plexiglas 7H | TiO ₂ : | Kerr McGee Tronox R-FK-3 |
| PC: | Bayer MaterialScience Makrolon 2800 | | |

The test result were evaluated with the above mentioned conditions and materials. For other polymers, polymergrades, TiO₂ grades and dyes concentrations, the results can be different from the values above.

Fastness to bleeding (Suitability for dyeing household utensils)
No staining of distilled water, 2% by weight acetic acid, 10% by volume ethanol, coconut oil or peanut oil in our test on 0.1% dyeing of PS, ABS, SAN, PMMA, PC, PET and PVC-U. The tests were carried out in accordance with the recommendations of the German BfR [for plastic applications (saturated strips of filter paper, 5h at 50°C)].

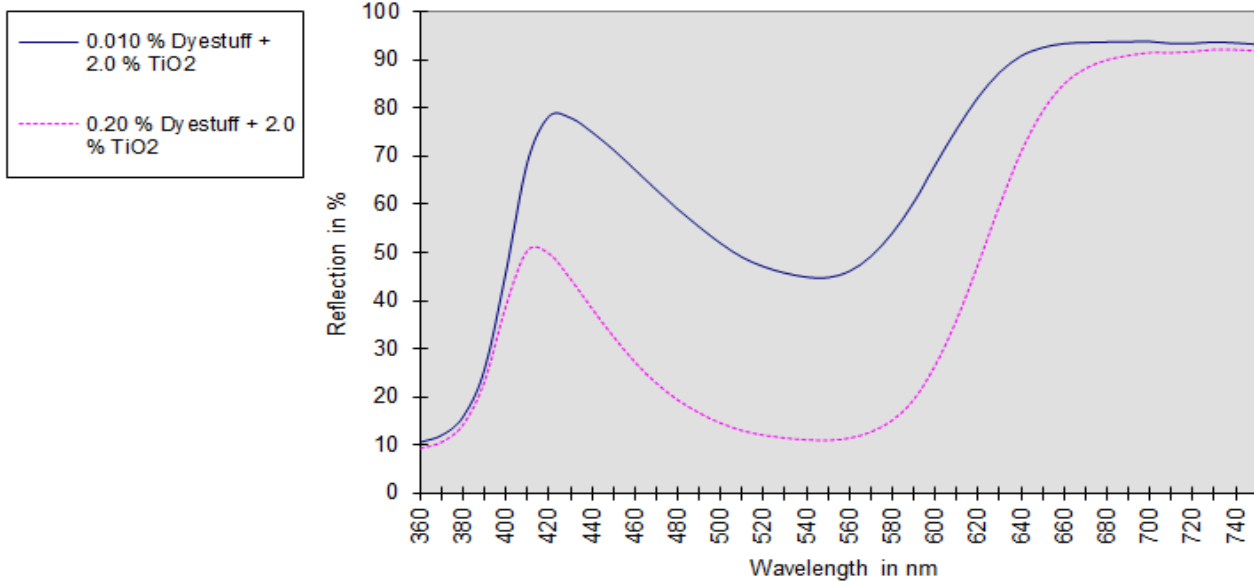
Purity This dyestuff meets current purity requirements for dyeing household utensils and toys in Europe.

Transmission curve MACROLEX Red 5B FG in GP-PS (2mm thickness)



Reflection curve MACROLEX Red 5B FG in GP-PS





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