

MACROLEX® Green 5B FG

Colour Index Part I Solvent Green 3
Part II 61565

Chemical description Anthraquinone dyestuff

Form supplied powder

Shade green with a blue cast

1/3 Standard depth 0.20% dyestuff (determined in GP-PS with 2% TiO₂)

Density (23°C) approx. 1.35 g/cm³

Bulk density approx. 0.45 g/cm³ (according to DIN ISO 787-11)

Melting point approx. 213°C

Main fields of application Transparent and opaque dyeing of PS, SAN, PMMA, PC, PET, ABS and ABS / PC blends.

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	1.0	3.5	3.0	0.1	4.5	20	12	17

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
300	300	280	280	300	350	280	260	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
0.105	6	7-8	0.200	5-6	7-8	0.105	6	7-8

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

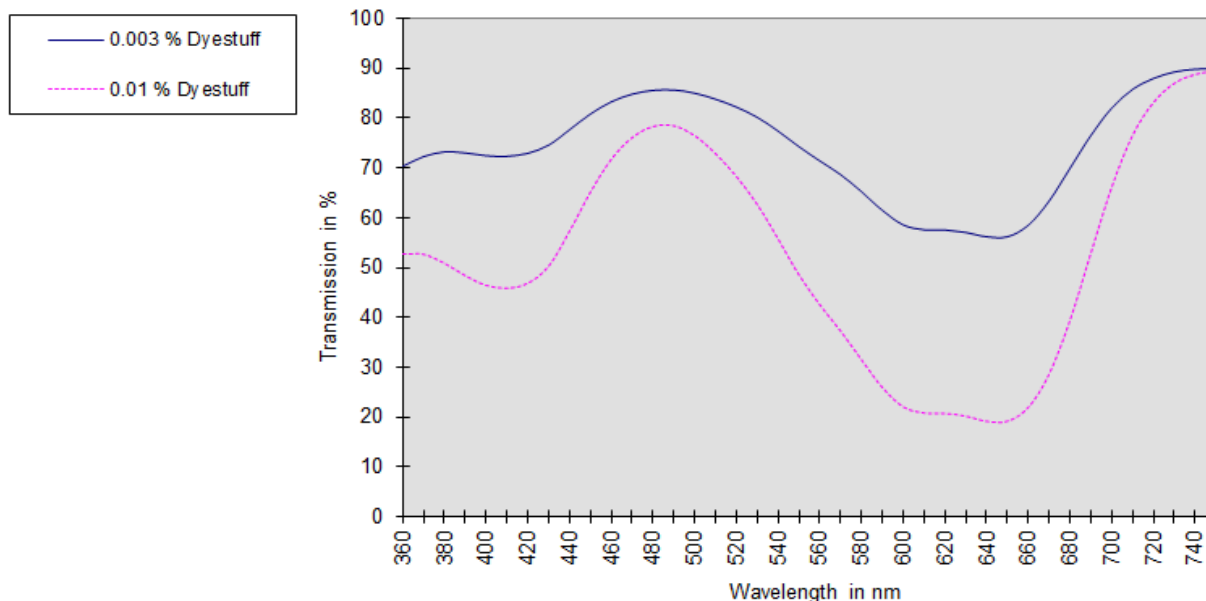
PC: Bayer MaterialScience Makrolon 2800

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.

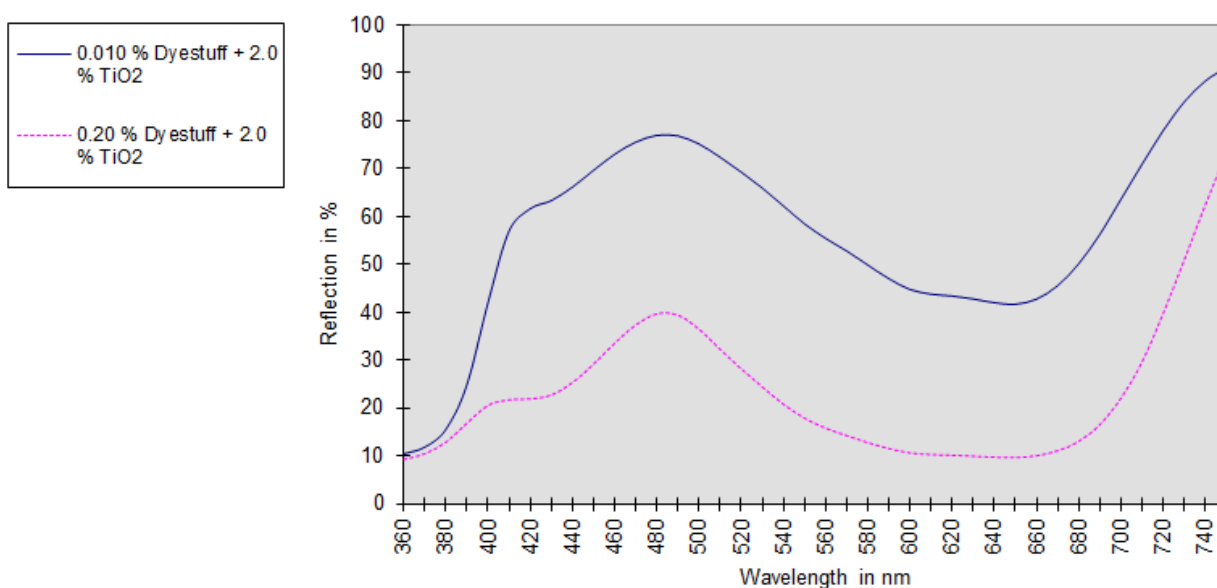
Fastness to bleeding (Suitability for dyeing household utensils)
No staining of distilled water, 2% by weight acetic acid, 10% by volume ethanol, coconut oil or peanut oil in our test on 0.1% dyeing of PS, ABS, SAN, PMMA, PC, PET and PVC-U. The tests were carried out in accordance with the recommendations 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 Green 5B FG in GP-PS (2mm thickness)



Reflection curve MACROLEX Green 5B FG in GP-PS



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