MACROLEX® Yellow E2R Gran

Colour Index Part I not listed
Part II not listed

Chemical description Quinophthalone dyestuff

Form supplied low dusting microgranulate

Shade yellow with a red cast

1/3 Standard depth 0.14% dyestuff (determined in GP-PS with 2% TiO_2)

Density (23°C) approx. 1.37 g/cm^3

Bulk density approx. 0.21 g/cm^3 (according to DIN ISO 787-11)

Melting point approx. 212°C

Main fields of application Transparent and opaque dyeing of 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	0.6	2.5	0.5	<0.1	1.5	10	3.5	1.6

Heat stability in °C at 1/3 standard depth with 1% TiO_2 (ABS 4% TiO_2 and PS 2% TiO_2) 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	340	-	-	290	280

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

Lightfastness 1/3 standard depth with 1% TiO_2 (PS 2% TiO_2) 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 %	reduc-tion	trans-parent	Dye content in %	reduc-tion	trans-parent	Dye content in %	reduc-tion	trans-parent
0.070	7	8	0.140	6-7	8	0.070	7	8

Materials used for testing of Heat stability and Lightfastness:

PS: BASF Polystyrene 143E
SB: BASF Polystyrene 472C
ABS: LANXESS Novodur P2X
SAN: BASF Luran 368R
PMMA: Röhm Plexiglas 7H
PC: Bayer MaterialScience Makrolon 2800
PA 6: LANXESS Durethan B30S
PA 6.6: LANXESS Durethan A30H 1.0
PET: Voridian 9921 W
PBT: LANXESS Pocan B1505
TiO_2: Kerr McGee Tronox R-FK-3

The test result were evaluated with the above mentioned conditions and materials. For other polymers, polymergrades, TiO_2 grades and dyes concentrations, the results can be different from the values above.

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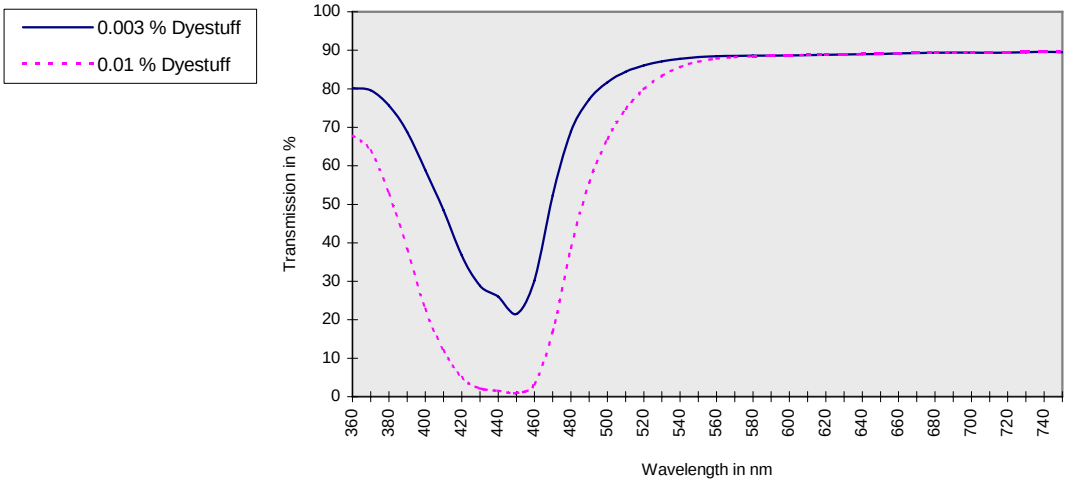
Fastness to bleeding

(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)].

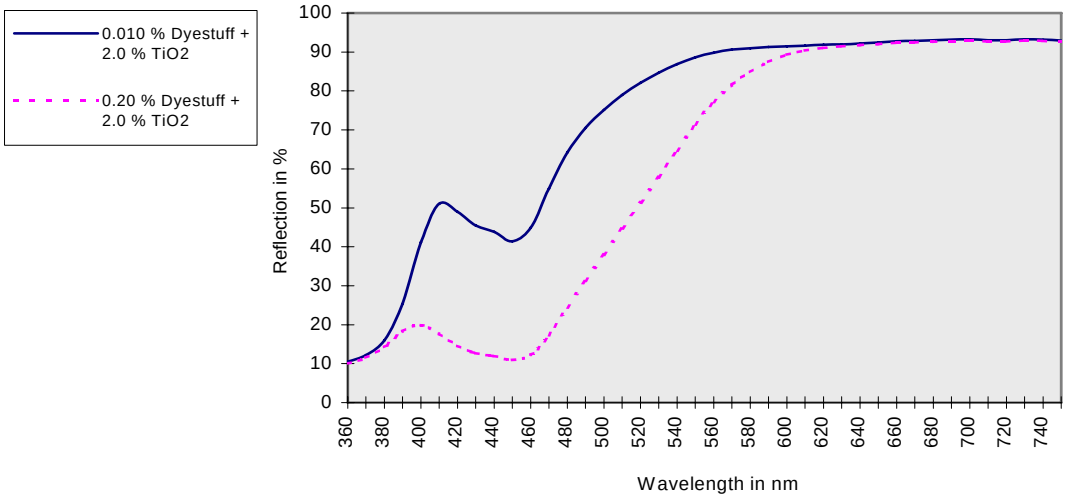
Purity

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

Transmission curve MACROLEX Yellow E2R Gran in GP-PS (2mm thickness)



Reflection curve MACROLEX Yellow E2R Gran in GP-PS



TECHNICAL INFORMATION

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