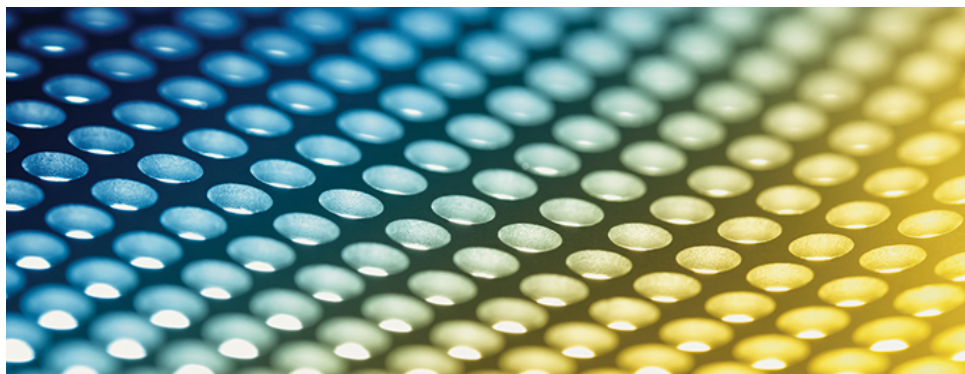


SANODURE® OLIVE BROWN 2R



HOMOGENEOUS, WATER SOLUBLE DYESTUFF FOR THE ADSORPTIVE DYEING OF ANODIZED ALUMINUM

Its brownish olive shade makes Sanodure Olive Brown 2R especially suited for military articles. However, this olive brown tone is also a particularly interesting main element for various dull shades.

Sanodure Olive Brown 2R can be used in combination with other aluminum dyes, e.g. for imitating integrally or electrolytically produced dyeings, and as favorably-priced alternative for interior application.

Only recommended for interior use.

1. DYE-SPECIFIC DATA

Commercial form:	Fine granules
Chemical character:	Azo-dyestuff, metal complex
Density:	600 g/l
Solubility in water:	30 g/l at 20 °C
Storage stability:	10 years
Ecotoxicological data:	See safety data sheet

CLARIANT INTERNATIONAL LTD

Rothausstrasse 61
4132 Muttenz
Switzerland

BUSINESS UNIT PIGMENTS
MARKETING AND SALES PLASTICS
AND SPECIAL APPLICATIONS

Phone +41 (0)61 469 79 45
Fax +41 (0)61 469 75 40

COPYRIGHT ©
CLARIANT INTERNATIONAL LTD 2013

ISSUE
July 2014

2. APPLICATION CONDITIONS

Concentration, dyeing temperature and time

	CONCENTRATION g/l	DYEING TEMPERATURE °C	DYEING TIME min
Bright shades	0.05-0.2	25-60	10-20
Medium shades	0.3-0.8	25-60	10-20
Dark shades	1.0-3.0	25-60	20-30

pH: 5.5±0.5

Buffer: The dyebaths are preferably buffered with
8 g/l sodium acetate trihydrate
0.4 ml/l acetic acid 100 %

Water quality: Preferably deionized

Sealing: Preferably with Anodal® ASL
(one or two stage)

CLARIANT INTERNATIONAL LTD

Rothausstrasse 61
4132 Muttenz
Switzerland

BUSINESS UNIT PIGMENTS
MARKETING AND SALES PLASTICS
AND SPECIAL APPLICATIONS

Phone +41 (0)61 469 79 45
Fax +41 (0)61 469 75 40

COPYRIGHT ©
CLARIANT INTERNATIONAL LTD 2013

ISSUE
July 2014

3. SETTING THE DYE BATH

When setting the dyebath, care must be taken that the dyestuff is well dissolved. Dissolve the dye preferably with hot water (80 °C) in a separate container (approx. 5 parts water to 1 part dye). Then this mother solution will be added to the dyebath while stirring.

4. LIGHT FASTNESS OF THE DYEINGS (ISO 2135)

Light fastness of dark dyeings (12 µm): Note 6 (ISO 2135)

5. SPECIAL REMARKS

- Sensitivity to ions
The dyebaths are sensitive to sulphate and aluminum; anodized objects should therefore be rinsed thoroughly before dyeing.
- Dyeing at room temperature

At about 20 °C more constant results can be obtained in standing baths than at 60 °C. However, the bath concentration and the dyeing time must be increased accordingly.

- **Strippability of dyeings**
Unsealed dyeings are virtually unstrippable in diluted nitric or sulphuric acid. They can be stripped in nitric acid 10 % + potassium permanganate 5 %. After the treatment in potassium permanganate, neutralization must be carried out for 1-5 min in a sodium bisulphite 5 % solution.
- **Shading**
The following aluminum dyes are particularly suitable for combinations with Sanodure Olive Brown 2R

COMBINATION ELEMENT	RESULTING SHADE
Sanodure Grey NL Liquid	Olive grey
Sanodure Bronze 2LW	Greenish bronze
Sanodure Fast Bronze L	Reddish bronze
Sanodure Black 2LW	Anthracite grey

- **Prevention of mould formation:**
We recommend the addition of a suitable antimicrobial product

CLARIANT INTERNATIONAL LTD

Rothausstrasse 61
4132 Muttenz
Switzerland

BUSINESS UNIT PIGMENTS
MARKETING AND SALES PLASTICS
AND SPECIAL APPLICATIONS

Phone +41 (0)61 469 79 45
Fax +41 (0)61 469 75 40

COPYRIGHT ©
CLARIANT INTERNATIONAL LTD 2013

ISSUE
July 2014

6. DISPOSAL OF THE DYEBATHS

Spent dyebaths can be readily precipitated with Anodal WT-1 Liquid. The method is described in detail in the technical information bulletin for Anodal WT-1 Liquid.

The table below shows the additions required for precipitating Sanodure Olive Brown 2R.

PRECIPI- TATION METHOD	FeCl ₃ , 40 % ml/g dye	ETCHING LYE ml/g dye	ANODAL WT-1 LIQUID ml/g dye	RESIDUAL DYE IN THE FILTRATE mg/l	RESIDUAL Ni IN THE FILTRATE mg/l
A	3.0	–	0.7	< 1	< 0.05
B	3.0	–	0.7	< 0.1	< 0.1
C	–	3.0	1.4	< 0.2	< 0.1

CLARIANT INTERNATIONAL LTD

Rothausstrasse 61
4132 Muttenz
Switzerland

BUSINESS UNIT PIGMENTS
MARKETING AND SALES PLASTICS
AND SPECIAL APPLICATIONS

Phone +41 (0)61 469 79 45
Fax +41 (0)61 469 75 40

COPYRIGHT ©
CLARIANT INTERNATIONAL LTD 2013

ISSUE
July 2014

This information corresponds to the present state of our knowledge and is intended as a general description of our products and their possible applications. Clariant makes no warranties, express or implied, as to the information's accuracy, adequacy, sufficiency or freedom from defect and assumes no liability in connection with any use of this information. Any user of this product is responsible for determining the suitability of Clariant's products for its particular application.* Nothing included in this information waives any of Clariant's General Terms and Conditions of Sale, which control unless it agrees otherwise in writing. Any existing intellectual/industrial property rights must be observed. Due to possible changes in our products and applicable national and international regulations and laws, the status of our products could change. Material Safety Data Sheets providing safety precautions, that should be observed when handling or storing Clariant products, are available upon request and are provided in compliance with applicable law. You should obtain and review the applicable Material Safety Data Sheet information before handling any of these products. For additional information, please contact Clariant.

* For sales to customers located within the United States and Canada the following applies in addition: NO EXPRESS OR IMPLIED WARRANTY IS MADE OF THE MERCHANTABILITY, SUITABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE OF ANY PRODUCT OR SERVICE.

© Trademark of Clariant registered in many countries

© 2013 Clariant International Ltd, Rothausstrasse 61, 4132 Muttenz, Switzerland

