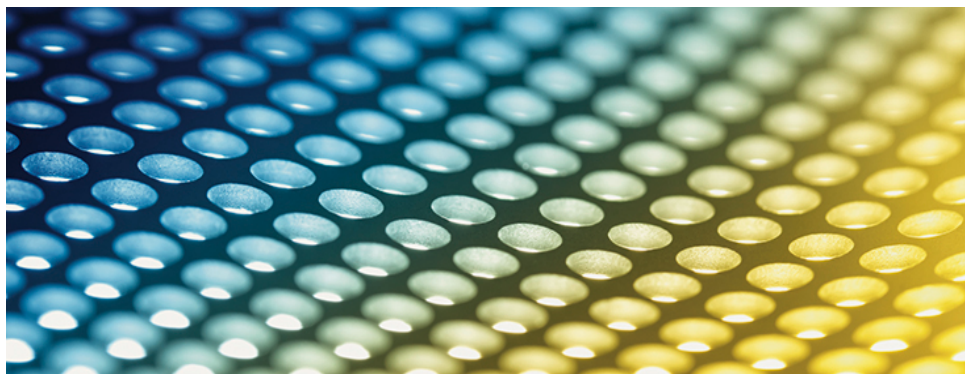


**SANODURE®
GREY NL**



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

Sanodure Grey NL is a homogeneous dye which has been specifically developed for the dyeing of anodic oxide films on aluminum. The dyeings are notable for their slightly brownish anthracite grey tone.

Only recommended for interior use.

1. DYE-SPECIFIC DATA

Commercial form:	Black liquid
Nuance:	Anthracite grey, slightly brownish
Chemical character:	Azo-dyestuff, heavy metal complex
Density:	1130 g/l
Solubility in water:	Miscible with water in any proportion
Storage stability:	2 years in close containers between 0 °C and 50 °C
Ecotoxicological data:	See safety data sheet

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2. APPLICATION CONDITIONS

Concentration, dyeing temperature and time

	CONCENTRATION g/l	DYEING TEMPERATURE °C	DYEING TIME min
Pale grey shades	0.1-0.5	20-25	10-20
Medium grey shades	1.0-3.0	20-25	10-20
Dark grey shades	5.0-10.0	20-25	20-40

pH: 5.5-6.0

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

Dyeing: For faultless, homogeneous results, we
recommend carrying out the dyeings in an
agitated dyebath

Water quality: Preferably deionized

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

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3. PREPARATION OF THE DYEBATH

As the dye is available in dissolved form the dyebath can be set or strengthened by simply adding the dye.

4. FASTNESS OF THE DYEINGS (ISO 2135)

Light fastness

Pale grey shades: Rating 5-6
Medium grey shades: Rating 6-7
Deep grey shades: Rating 7-8

Heat stability Low, medium grey,
1 h, 150 °C, change of shade towards green
1 h, 200 °C, change of shade towards yellow

5. SUPPLEMENTARY RECOMMENDATIONS

Stability

The best dyebath stability is achieved by cold dyeing (20-25 °C) and by buffering the dyebath (see section 2).

Contamination

Any contamination of the dyebath impairs the adsorption capacity of the dyestuff to a greater or lesser extent. The dyebaths are sensitive to sulfate and aluminum ions; anodized objects should therefore be rinsed thoroughly before dyeing.

Stripping unsealed dyeings

Treat with 100 g/l nitric acid conc.
 50 g/l potassium permanganate
 for 1-5 min at 20-30 °C / 68-86 °F

Rinse then

Treat with 50-100 g/l sodium bisulphite
 for 1-5 min at 20-25 °C

Rinse

Shading

The dye can be shaded for greenish bronze shades with Sanodure Fast Gold L and for reddish bronze shades with Sanodure Fast Bronze L or Sanodure Bronze 2LW.

Prevention of mould formation:

We recommend the addition of a suitable antimicrobial product.

6. DISPOSAL OF THE DYE BATHS

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.

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The table below shows the additions required for precipitating Sanodure Grey NL

PRECIPITATION 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
A	2.0	–	0.2	< 1
B	2.0	–	0.2	~ 12
C	–	2.0	0.3	~ 320

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