

Annex 14 to the Contract pursuant to DE-UZ 154/155
Blue Angel Eco-Label for
„Textiles“/„Shoes“

**Please use only this
form!**

Declaration as a textile finisher (company):

1 Biocidal and biostatic products

The use of biocidal products, as defined in the Biocidal Directive (EU) 528/2012, and biostatic products is not permitted. In-can preservatives are exempted.

We hereby declare compliance with the requirements.

2 Requirements for the wastewater from textile finishing

2.1 Requirements for the wastewater at the discharge point (direct discharge)

Wastewater from wet-processing sites (except wastewater from water retting of flax and other bast fibres) shall, when discharged to surface waters, not exceed the following limits:

- COD: 160 mg/l (expressed as an annual average),
- BOD₅: 30 mg/l,
- Sulfite: 1 mg/l,
- Ammonium nitrogen: 10 mg/l,
- Total nitrogen: 20 mg/l,
- Total phosphorus: 2 mg/l,
- Chromaticity shall meet the following specifications:
 - Spectral absorption coefficient at
 - 436 nm (yellow sector) 7 m⁻¹
 - 525 nm (red sector) 5 m⁻¹
 - 620 nm (blue sector) 3 m⁻¹
- Toxicity in fish eggs G_{EI} or daphnia (G_D) or algae (G_A): 2.
- The pH value of wastewater discharged into surface waters shall be between 6 and 9 (unless the pH value of the receiving waters is outside this range) and the temperature shall be less than 35 °C (unless this temperature is already exceeded in the receiving waters).

This requirement shall not apply if it can be proved that the discharge into the municipal sewage treatment plant has been permitted and the municipal sewage treatment plant meets at least the requirements of Council Directive 91/271/EEC of 21st May 1991 concerning urban wastewater treatment.

We hereby declare compliance with the requirements. Attached hereto are test reports evidencing compliance with the requirements, Methods see 2.2. The discharge values of the wastewater treatment plant are checked at least every six months.

Attached hereto are a permit of the municipal sewage treatment plant and a document evidencing that the sewage treatment plant meets at least the requirements according to 91/271/EEC.

2.2 Requirements for the wastewater prior to mixing (direct and indirect discharge)

Prior to mixing with other wastewaters the wastewater shall not exceed the following values:

- AOX: 0,5 mg/l,
- Sulfide: 1 mg/l,
- Copper: 1 mg/l,
- Nickel: 0.5 mg/l,
- Total chromium: 0.5 mg/l,
- Tin: 2 mg/l,
- Zinc: 2 mg/l

Attached hereto are test reports evidencing compliance with the requirements according to Annex 38 to the German Wastewater Ordinance or equivalent international test reports. In performing the tests, the following test methods may be used:

- COD: ISO 6060 or DIN 38409-41 or DIN-ISO 15705 on the basis of a qualified random sample or a 2-hour mixed sample,
- Copper and nickel: ISO 8288,
- Sulphide: DIN 38405-27 or ISO 10530,
- Sulphite: DIN EN ISO 10304-3,
- Toxicity to fish eggs: DIN EN ISO 15088,
- Toxicity to daphnia: DIN EN ISO 6341,
- Toxicity to algae: DIN EN ISO 8692,
- AOX (chloride content < 5g/l): DIN EN ISO 9562,
- AOX (chloride content > 5g/l): DIN 38414-17,
- Spectral absorption coefficient: DIN 38404-3,
- Ammonium nitrogen: DIN EN ISO 11732,
- Total nitrogen: DIN EN ISO 12260,
- Total phosphorous: DIN EN ISO 11885,
- Tin: DIN EN ISO 11885,
- Zinc: DIN EN ISO 11885

As an alternative to measuring the copper, nickel and chromium contents it is hereby declared that metal complex dyes containing copper, chromium or nickel do not form part of the dyeing formula.

3 Requirements for exhaust air emissions in textile finishing

Total organic substances as total carbon shall not exceed 0.8 g C per kg of textiles during the thermo-setting, thermosoling, coating, impregnating or wet finishing of textiles, including the respective drying facilities.

An additional maximum of 0.4 g C per kg of textiles may be emitted from carry-overs from upstream processes and residual contents of preparations each.

We hereby declare compliance with the requirements.

Attached hereto is a report according to Appendix D including a projection of emissions on the basis of substance emission factors.

Attached hereto is a test report according to DIN EN 12619. When testing according to DIN 12619 the product-related emission factor is determined from the measured concentration value and the actual air/product ratio. The calculation formula, including an example calculation, can be seen from Appendix D.

Place:

Date:

Signature:

Appendix D

Calculation of Exhaust Air Emissions in Textile Finishing

The substance emission factors shall be made available as product information by the manufacturer of textile agents.

The substance emission factor is defined as the amount of substance in gram that may be emitted under defined process conditions (curing time, temperature, substrate) from 1 kg of textile auxiliary.

1. Calculation of the product-related emission factor from substance emission factors:

$$WF_C = \Sigma(FA \times FK \times f_c)$$

THM: Textile auxiliary

WF_C: Product-related emission factor in g of total carbon per kg of textile material

FA: Liquor pickup in kg of liquor per kg of textile material

FK: Liquor concentration in g of textile auxiliary per kg of liquor

f_c: Total carbon substance emission factor in g of total carbon per gram of textile auxiliary

Calculation of product-related emission factors of two formulas (by way of example):

Liquor	Textile Auxiliary	FK [g/kg]	FA [kg/kg]	f _c [g/g]	FK x FA x f _c	WF _C [g/kg]
Formula 1	Fatty acid ester	20	0.65	0.0152	0.2	
	Polysiloxane	20	0.65	0.0052	0.07	
	Reactant crosslinking agent with catalyst	100	0.65	0.0009	0.06	
	Stearyl urea derivative with catalyst	20	0.65	0.0162	0.21	
Total 1						0.54
Formula 2	Plasticizer	50	1	0.005	0.25	
	Crease-resistant finish, formaldehyde-free	12	1	0,010	0.12	
	Catalyst	12	1	0.008	0.1	
Total 2						0.47

2. Calculation of the Product-Related Emission Factor from the Measured Concentration

Firstly, the air/product ratio (LWV) in m³/kg is calculated from the measured waste gas flow (V) (in m³/h) of all emission points of a thermal treatment unit and the product throughput (W) (in kg/h):

$$LWV = V/W$$

If more than one thermal treatment units are connected to a waste gas cleaning plant the weighted LWV will have to be determined by dividing the total waste gas flow by the total product throughput.

$$WF_C = LWV \times \Sigma c_c$$

THM: Textile auxiliary

WF_C: Product-related emission factor in g of total carbon per kg of textile material

LWV: Air/product ratio in m³ waste gas per kg of textile material

c_c: measured concentration in g of total carbon per m³ of waste gas