

Appendix 11 Chemical requirements applicable only to surface treatment

This declaration shall be completed and signed by the surface treatment contractor.

Surface treatment contractor:
Name of the product:

Req. O30 Quantity applied and application method

Give a short description of the surface treatment:

Number of coats: _____

Quantity applied (g/m²): _____

Application method(s): _____

Req. O31 Environmentally harmful products and substances in surface treatment systems, alternative b)

Is the quantity of environmentally harmful substances applied in the surface treatment system not more than 60 g/m², calculated in a wet state? Yes No

Follow a calculation example in "Appendix 11, continuation" and instruction below:

1) First, one of the formulas below is to be used to calculate the total amount of environmentally harmful substances in the surface treatment system (%):

$$100 \cdot H410 + 10 \cdot H411 + H412$$

or

$$100 \cdot (R50/53) + 10 \cdot (R51/53) + (R52/53)$$

H410 is the concentration of substances classified as H410 (same method for R50/53) in percent

H411 is the concentration of substances classified as H411 (same method for R51/53) in percent

H412 is the concentration of substances classified as H412 (same method for R52/53) in percent

All environmentally harmful substances included in the unhardened chemical products are to be included in the calculation. Classification according to the table below.

Hazard class	Hazard category and hazard phrase in line with CLP Regulation 1272/2008	Hazard designations and risk phrases in line with EU Dangerous Substances Directive 67/548/EEC
Toxic to aquatic organisms	Chronic 1 with H410	N; R50-53
	Chronic 2 with H411	N; R51-53
	Chronic 3 with H412	R52-53

2) Thereafter, the amount of applied substances in the surface treatment system is calculated according to below equation:

$$\frac{\text{Applied quantity of respective product (g/m}^2\text{)} \times \text{Proportion of environmentally harmful substances in product (\%)}}{\text{Surface treatment efficacy}}$$

Req. O32 Volatile organic compounds (VOC) – surface treatment systems only, alternative b)

State the total amount of VOC in the surface treatment system in g/m²:

Signature of surface treatment contractor:

Date	Company
Signature by contact person	
Name of contact person	Phone

Appendix 11, continuation:**Calculation example over applied sum environmentally harmful substances (O31) and application sum of VOC (O32) in surface treatment systems:**

The manufacturer of flooring uses 3 products in the surface treatment system and roller coating technique is used (efficiency rate 95 %).

The products contain:

Product A: applied with 10 g/m²

Product B: applied with 20 g/m²

Product C: applied with 10 g/m²

First, the environmental hazardousness is weighted for each surface treatment chemical product according to the weight equation in O32:

Product	Content of env.hazardous substances (%)			
	H410	H411	H412	= weighted env.hazardous content (%)
A	0	1	0	10
B	0	18	0,5	180,5
C	1	5	1	151

Thereafter the sum of the applied environmental hazardous substances in the surface treatment system is calculated using the above presented weighted content for each product (with consideration taken for the efficacy of the application method). Below equation is used:

$$\frac{\text{Applied quantity of each surface chemical product (g/m}^2\text{)} \times \text{proportion env.hazardous substances in the respective product (\%)}}{\text{surface treatment efficacy}}$$

Hence:

Product	Applied amount (g/m ²)	Weighted env.hazardous content (%), see above	Applied amount env.hazardous substances (g/m ²)
A	10	10	1
B	20	180,5	36,1
C	10	151	15,1
Total application of env. hazardous substances:			52,2 g/m ²
Total application of env. hazardous substances (considering application method efficacy):			54,9 g/m ²

The surface treatment system has therefore applied a weighted total sum env.hazardous substances of 54,9g/m² which fulfills the limit value of 60g/m².