

Solvent Emissions Directive (SED)

The solvent emission directive was first established in 1999. In 2004 the specific part relating to decorative paints was amended. The decorative paints category is divided into several subcategories depending on the type of paint, for instance if it is a primer, topcoat or exterior coating. For each category the definitions are set for either the solvent or water based version of the paint for the year 2007 (phase I) and 2010 (phase II) (see Table 1).

Table 1. Limits for Decopaints

Coating categories Type	Phase I (g/l)* (2007)	Phase II (g/l)* (2010)	Type	Phase I (g/L) 2007	Phase II g/L) 2010
Interior matt wall and ceilings (Gloss at 60o < 25 units)			WB	75	30
Interior matt wall and ceilings (Gloss at 60o > 25 units)			SB	400	30
Interior glossy walls and ceilings			WB	150	100
Interior glossy walls and ceilings			SB	400	100
Exterior walls of mineral substrate			WB	75	40
Exterior walls of mineral substrate			SB	450	430
Interior trim and cladding paints for wood and metal			WB	150	130
Interior trim and cladding paints for wood and metal			SB	400	300
Exterior trim and cladding paints for wood and metal			WB	150	130
Exterior trim and cladding paints for wood and metal			SB	400	130
Interior/exterior trim varnishes and wood stain			WB	150	130
Interior/exterior trim varnishes and wood stain			SB	500	400
Primers			WB	50	30
Primers			SB	450	350
Binding primers			WB	50	30
Binding primers			SB	750	750
One pack performance coatings			WB	140	140
One pack performance coatings			SB	600	500
2 pack reactive performance coatings for specific end use			WB	140	140
2 pack reactive performance coatings for specific end use			SB	550	500
Multi-coloured coatings			WB	150	100
Multi-coloured coatings			SB	400	100
Decorative effects coatings			SB	300	200
Decorative effects coatings			WB	500	200

The other coating sub markets involved in SED are the vehicle refinish industry, which also has a product driven approach. All industrial coating sectors like general industrial, marine and protective, wood, automotive OEM and can and coil are regulated by emission from the end user of the coating. This means emission ceilings have been set for the factories applying the coating of which some examples relevant for the coating industry are shown in Table 2.

Table 2. Emission Ceilings Industrial Coatings

Sector	Threshold (MT/yr)	Emission Limit Stack (mgC/m3)	Total Emission Limit Values		Reduction Scheme Emission factor
			Fugitive (%)		
			Existing installation	New installation	
Vehicle coating < 15tpa	0.5	50	25	25	
Coil Coatings	25	50	10	5	1.2
Coating of winding wire	5		10g/kg diameter <0.1mm 5g/kg diameter >0.1mm		
Woodcoats	15-25	100	25	25	1.6
	>25	50/75	20	20	1.0
Coatings manufacture	100-1000	150	5	5	5% of solvent input
	>1000	150	3	3	3% of solvent input