

Comparison of the current VOC requirements for floor coverings
in Germany, France and the USA (2011)

	CAS-No.	LCI	CREL	AGBB (Germany)		A+ (France)	GUT (Europe)		RAL UZ 128 carpets		RAL UZ 120 resilient FC		RAL UZ 38 wood based panels Laminate		CRI/GLP Carpets (USA)		CA Section 01350 (2010)									
				3 d	28 d	28 d	3 d	28 d	3 d	28 d	3 d	28 d	3 d	28 d	1 d	14 d	14 d									
Thresholds				3 d	28 d	28 d	3 d	28 d	3 d	28 d	3 d	28 d	3 d	28 d	1 d	14 d	14 d									
TVOC (C6-C16)				10000	1000	1000	250	100	250	100	1000	300	AgBB (optional)	300	no requirement	no requirement	no requirement									
SVOC (C16-C23)				no requirement	100	no requirement	30	30	30	30	no requirement	30	AgBB (optional)	100	no requirement	no requirement	no requirement									
VOC without LCI-value				no requirement	100	no requirement	100	50	n.r.	50	no requirement	100	AgBB (optional)	n.r.	no requirement	no requirement	no requirement									
R-Value					1		1,0	1,0		1		1														
carcinogenic substances																										
Sum of carcinogenic substances				10	1	1	n.n.	n.n.			10	1	AgBB (optional)		n.r.	n.r.	Prop.65									
each substance EU classes 1+ 2				no requirement	1	1	n.n.	n.n.	1	1	no requirement	1	AgBB (optional)	1	30	30	30									
Benzene	71-43-2	-	60	no requirement	1	1	n.n.	n.n.	1	1	no requirement	1	AgBB (optional)	1	30	30	30									
Epichlorohydrin	106-89-8	-	3	no requirement	1	1	n.n.	n.n.	1	1	no requirement	1	AgBB (optional)	1	n.r.	n.r.	1,5									
Trichlorethylene	79-01-6	-	600	no requirement	1	1	n.n.	n.n.	1	1	no requirement	1	AgBB (optional)	1	n.r.	n.r.	300									
Aldehyde s																										
Formaldehyde	50-00-0	--		no requirement	no requirement	10	10	4	no requirement	25	no requirement	60	no requirement	no requirement	60	16,5	16,5	16,5								
Acetaldehyd	75-07-0	--		no requirement	no requirement	200	10	4	no requirement	25	no requirement	no requirement	no requirement	no requirement	70	70	70									
Octanal	124-13-0	1.100		no requirement	no requirement	no requirement	11	5	no requirement	25	no requirement	no requirement	no requirement	no requirement	7,2	7,2	no requirement									
Nonanal	124-19-6	1.300		no requirement	no requirement	no requirement	20	8	no requirement	25	no requirement	no requirement	no requirement	no requirement	13	13	no requirement									
other Aldehydes (each)				no requirement	no requirement	no requirement	20	8	no requirement	25	no requirement	no requirement	no requirement	no requirement	n.r.	n.r.	no requirement									
substances with LCI-value				This is only a small list of LCI substances to be able to compare German French and US system. For more than 185 substances LCI-values are listed																						
1,2,4-Trimethylbenzene	95-63-6	1000	-	no requirement after 3 days	for all substances with LCI-value the R-concept has to be applied	1000			no requirement after 3 days	for all substances with LCI-value the R-concept has to be applied	no requirement after 3 days	for all substances with LCI-value the R-concept has to be applied	no requirement after 3 days	for all substances with LCI-value the R-concept has to be applied	n.r.	n.r.	n.r.									
1,4-Dichlorobenzene	106-46-7	100	800			60	100	40							400											
1-Methyl-2-pyrrolidone	872-50-4	400	-			n.r.	100	40							160	160										
2-Butoxyethanol	111-76-2	980	-			1000									n.r.	n.r.	no requirement									
2-ethyl hexanoic acid	149-57-5	50	-			no requirement	38	15							25	25	no requirement									
4-Phenylcyclohexen	4994-16-5	1300	-			no requirement	15	5							27	27	no requirement									
Caprolactam	105-60-2	240	-			no requirement									70	100	no requirement									
Dioxane (1,4-)	123-91-1	73	3000			750	100	40							1500	1000	no requirement									
Ethylbenzene	100-41-4	4400	2000			no requirement									200	200	no requirement									
Ethylenglycol (EG)	107-21-1	260	400			no requirement									35	35	no requirement									
EG-monoethylether	110-80-5	8	70			no requirement									150	150	no requirement									
EG-monoethylether-acetate	111-15-9	11	300			no requirement									45	45	no requirement									
EG-monomethylether	109-86-4	3	60			no requirement									3500	3500	no requirement									
EG-monomethylether-acetate	110-49-6	5	90			no requirement									9,0	9,0	no requirement									
n-Hexane	110-54-3	72	7000			no requirement									100	100	no requirement									
Naphthalin	91-20-3	10	18			no requirement	7	3							3500	3500	no requirement									
Phenol	108-95-2	10	200			no requirement									100	100	no requirement									
Propyleneglykol-monomethyl-ether	107-98-2	3700	7000			no requirement									450	450	no requirement									
Styrene	100-42-5	860	900			250	5	2							17,5	17,5	no requirement									
Tetrachloroethylene	127-18-4	250	35			250	26	10							150	150	no requirement									
Toluene	08-88-3	1900	300	300	50	20	350	350	no requirement																	
Xylene	1330-20-7	2.200	700	200	100	40			no requirement																	
substances without LCI-value																										
CS ₂	75-15-0	-	800	no requirement after 3 days	the sum of all VOC without LCI shall not exceed 100 µg/m ³	no requirement			no requirement after 3 days	the sum of all VOC without LCI shall not exceed 100 µg/m ³	no requirement after 3 days	the sum of all VOC without LCI shall not exceed 100 µg/m ³	no requirement after 3 days	the sum of all VOC without LCI shall not exceed 100 µg/m ³	no requirement	no requirement	400									
Carbon Tetrachloride	56-23-5	-	40			no requirement									20											
Chlorobenzene	108-90-7	-	1000			no requirement									500											
Chloroform	67-66-3	-	300			no requirement									150											
Dichloroethylene (1,1)	75-35-4	-	70			no requirement									35											
Dimethylformamide (N,N-)	68-12-2	-	80			no requirement									40											
Isophorone	78-59-1	-	2000			no requirement									1000											
Isopropyl Alcohol	67-63-0	-	7000			no requirement									3500											
1,1,1 Trichloro ethane	71-55-6	-	1000			no requirement									500											
Methyl-t-butyl ether	1634-04-4	-	8000			no requirement									4000											
Dichloromethane	75-09-2	-	400			no requirement									200											
Vinyl acetate	108-05-4	--	200			no requirement									100											
4-Vinylcyclohexene	100-40-3	--	-			no requirement									n.r.	n.r.										
Phthalates																										
DBP*, DEHP*, DEP, BBP, DOP DOP, DMP (each)						1*	1	1							n.n.	n.n.	n.n.	n.n.	n.n.	n.n.	n.n.	n.n.	n.r.	n.r.	n.r.	