

Emission Standards

EU emission standards are summarized in the following tables. All dates listed in the tables refer to new type approvals. The EC Directives also specify a second date—one year later, unless indicated otherwise—which applies to first registration (entry into service) of existing, previously type-approved vehicle models.

Table 1
EU Emission Standards for Passenger Cars (Category M₁*)

Stage	Date	CO	HC	HC+NO _x	NO _x	PM	PN
<i>g/km</i>							
<i>#/km</i>							
Compression Ignition (Diesel)							
Euro 1 †	1992.07	2.72 (3.16)	–	0.97 (1.13)	–	0.14 (0.18)	–
Euro 2, IDI	1996.01	1.0	–	0.7	–	0.08	–
Euro 2, DI	1996.01 ^a	1.0	–	0.9	–	0.10	–
Euro 3	2000.01	0.64	–	0.56	0.50	0.05	–
Euro 4	2005.01	0.50	–	0.30	0.25	0.025	–
Euro 5a	2009.09 ^b	0.50	–	0.23	0.18	0.005 ^f	–
Euro 5b	2011.09 ^c	0.50	–	0.23	0.18	0.005 ^f	6.0×10 ¹¹
Euro 6	2014.09	0.50	–	0.17	0.08	0.005 ^f	6.0×10 ¹¹
Positive Ignition (Gasoline)							
Euro 1 †	1992.07	2.72 (3.16)	–	0.97 (1.13)	–	–	–
Euro 2	1996.01	2.2	–	0.5	–	–	–
Euro 3	2000.01	2.30	0.20	–	0.15	–	–
Euro 4	2005.01	1.0	0.10	–	0.08	–	–
Euro 5	2009.09 ^b	1.0	0.10 ^d	–	0.06	0.005 ^{e,f}	–
Euro 6	2014.09	1.0	0.10 ^d	–	0.06	0.005 ^{e,f}	6.0×10 ¹¹ e,g

* At the Euro 1..4 stages, passenger vehicles > 2,500 kg were type approved as Category N₁ vehicles

† Values in brackets are conformity of production (COP) limits

a. until 1999.09.30 (after that date DI engines must meet the IDI limits)

b. 2011.01 for all models

c. 2013.01 for all models

d. and NMHC = 0.068 g/km

e. applicable only to vehicles using DI engines

f. 0.0045 g/km using the PMP measurement procedure

g. 6.0×10¹² 1/km within first three years from Euro 6 effective dates

Table 2
EU Emission Standards for Light Commercial Vehicles

Category†	Stage	Date	CO	HC	HC+NOx	NOx	PM	PN
			<i>g/km</i>					<i>#/km</i>
Compression Ignition (Diesel)								
N ₁ , Class I ≤1305 kg	Euro 1	1994.10	2.72	–	0.97	–	0.14	–
	Euro 2 IDI	1998.01	1.0	–	0.70	–	0.08	–
	Euro 2 DI	1998.01 ^a	1.0	–	0.90	–	0.10	–
	Euro 3	2000.01	0.64	–	0.56	0.50	0.05	–
	Euro 4	2005.01	0.50	–	0.30	0.25	0.025	–
	Euro 5a	2009.09 ^b	0.50	–	0.23	0.18	0.005 ^f	–
	Euro 5b	2011.09 ^d	0.50	–	0.23	0.18	0.005 ^f	6.0×10 ¹¹
Euro 6	2014.09	0.50	–	0.17	0.08	0.005 ^f	6.0×10 ¹¹	
N ₁ , Class II 1305–1760 kg	Euro 1	1994.10	5.17	–	1.40	–	0.19	–
	Euro 2 IDI	1998.01	1.25	–	1.0	–	0.12	–
	Euro 2 DI	1998.01 ^a	1.25	–	1.30	–	0.14	–
	Euro 3	2001.01	0.80	–	0.72	0.65	0.07	–
	Euro 4	2006.01	0.63	–	0.39	0.33	0.04	–
	Euro 5a	2010.09 ^c	0.63	–	0.295	0.235	0.005 ^f	–
	Euro 5b	2011.09 ^d	0.63	–	0.295	0.235	0.005 ^f	6.0×10 ¹¹
Euro 6	2015.09	0.63	–	0.195	0.105	0.005 ^f	6.0×10 ¹¹	
N ₁ , Class III >1760 kg	Euro 1	1994.10	6.90	–	1.70	–	0.25	–
	Euro 2 IDI	1998.01	1.5	–	1.20	–	0.17	–
	Euro 2 DI	1998.01 ^a	1.5	–	1.60	–	0.20	–
	Euro 3	2001.01	0.95	–	0.86	0.78	0.10	–
	Euro 4	2006.01	0.74	–	0.46	0.39	0.06	–
	Euro 5a	2010.09 ^c	0.74	–	0.350	0.280	0.005 ^f	–
	Euro 5b	2011.09 ^d	0.74	–	0.350	0.280	0.005 ^f	6.0×10 ¹¹
Euro 6	2015.09	0.74	–	0.215	0.125	0.005 ^f	6.0×10 ¹¹	
N ₂	Euro 5a	2010.09 ^c	0.74	–	0.350	0.280	0.005 ^f	–
	Euro 5b	2011.09 ^d	0.74	–	0.350	0.280	0.005 ^f	6.0×10 ¹¹
Euro 6	2015.09	0.74	–	0.215	0.125	0.005 ^f	6.0×10 ¹¹	
Positive Ignition (Gasoline)								
N ₁ , Class I ≤1305 kg	Euro 1	1994.10	2.72	–	0.97	–	–	–
	Euro 2	1998.01	2.2	–	0.50	–	–	–
	Euro 3	2000.01	2.3	0.20	–	0.15	–	–
	Euro 4	2005.01	1.0	0.1	–	0.08	–	–
	Euro 5	2009.09 ^b	1.0	0.10 ^g	–	0.06	0.005 ^{e,f}	–

Table 2
EU Emission Standards for Light Commercial Vehicles

Category†	Stage	Date	CO	HC	HC+NOx	NOx	PM	PN
	Euro 6	2014.09	1.0	0.10 ^g	–	0.06	0.005 ^{e,f}	6.0×10 ¹¹ ^{e,j}
N ₁ , Class II 1305–1760 kg	Euro 1	1994.10	5.17	–	1.40	–	–	–
	Euro 2	1998.01	4.0	–	0.65	–	–	–
	Euro 3	2001.01	4.17	0.25	–	0.18	–	–
	Euro 4	2006.01	1.81	0.13	–	0.10	–	–
	Euro 5	2010.09 ^c	1.81	0.13 ^h	–	0.075	0.005 ^{e,f}	–
	Euro 6	2015.09	1.81	0.13 ^h	–	0.075	0.005 ^{e,f}	6.0×10 ¹¹ ^{e,j}
N ₁ , Class III >1760 kg	Euro 1	1994.10	6.90	–	1.70	–	–	–
	Euro 2	1998.01	5.0	–	0.80	–	–	–
	Euro 3	2001.01	5.22	0.29	–	0.21	–	–
	Euro 4	2006.01	2.27	0.16	–	0.11	–	–
	Euro 5	2010.09 ^c	2.27	0.16 ⁱ	–	0.082	0.005 ^{e,f}	–
	Euro 6	2015.09	2.27	0.16 ⁱ	–	0.082	0.005 ^{e,f}	6.0×10 ¹¹ ^{e,j}
N ₂	Euro 5	2010.09 ^c	2.27	0.16 ⁱ	–	0.082	0.005 ^{e,f}	–
	Euro 6	2015.09	2.27	0.16 ⁱ	–	0.082	0.005 ^{e,f}	6.0×10 ¹¹ ^{e,j}

† For Euro 1/2 the Category N₁ reference mass classes were Class I ≤ 1250 kg, Class II 1250–1700 kg, Class III > 1700 kg

a. until 1999.09.30 (after that date DI engines must meet the IDI limits)

b. 2011.01 for all models

c. 2012.01 for all models

d. 2013.01 for all models

e. applicable only to vehicles using DI engines

f. 0.0045 g/km using the PMP measurement procedure

g. and NMHC = 0.068 g/km

h. and NMHC = 0.090 g/km

i. and NMHC = 0.108 g/km

j. 6.0×10¹² 1/km within first three years from Euro 6 effective dates