

Supplementary Material

<https://dieselnet.com/standards/eu> (accessed on 15.09.2021)

Table S1. Euro Norms for the gasoline cars

emission	EURO 1 [1993]	EURO 2 [1997]	EURO 3 [2001]	EURO 4 [2006]	EURO 5 [2011]	EURO 6 [2015]
CO [g/km]	2,72	2,2	2,3	1	1	1
HC [g/km]	–	–	0,2	0,1	0,1	0,1
NOx [g/km]	–	–	0,15	0,08	0,06	0,06
HC+NOx [g/km]	0,97	0,5	–	–	–	–
PM [g/km]	–	–	–	–	0,005*	0,005*
PN [1/km]	–	–	–	–	–	$6.0 \times 10^{11} **$

* vehicles using DI engines; 0.0045 g/km using the PMP measurement procedure

** vehicles using DI engines; 6.0×10^{12} 1/km in first 3 years from Euro 6 effective dates

Table S2. Euro Norms for the diesel cars

emission	EURO 1 [1992]	EURO 2 [1996]	EURO 3 [2001]	EURO 4 [2006]	EURO 5 [2011]	EURO 6 [2014]
CO [g/km]	2,72	1	0,64	0,5	0,5	0,5
HC [g/km]	–	–	–	–	–	–
NOx [g/km]	–	–	0,5	0,25	0,18	0,08
HC+NOx [g/km]	0,97	0,7	0,56	0,3	0,23	0,17
PM [g/km]	0,14	0,08	0,05	0,025	0,005*	0,005*
PN [1/km]	–	–	–	–	$6.0 \times 10^{11} **$	$6.0 \times 10^{11} **$

* 0.0045 g/km using the PMP measurement procedure

** vehicles using DI engines; 6.0×10^{12} 1/km in first 3 years from Euro 6 effective dates

Table S3. Euro Norms for HDV diesel cars

emission	EURO 1 [1992]	EURO 2 [1998]	EURO 3 [2000]	EURO 4 [2005]	EURO 5 [2008]	EURO 6 [2013]
CO [g/kWh]	4,5	4,0	2,1	1,5	1,5	1,5
HC [g/kWh]	1,1	1,1	0,66	0,46	0,46	0,13
NOx [g/kWh]	8,0	7,0	5,0	3,5	2,0	0,4
HC+NOx [g/kWh]	–	–	–	–	–	–
PM [g/kWh]	0,612	0,25	0,10	0,02	0,02	0,01
PN [[1/kWh]	–	–	–	–	–	8.0×10^{11}

