Down/Ned

Here are some number's about how much the cars pollute after they drove 60.000 or 100.000 km.
The long time test's are made by the German Car magazines MOT and AMS (Auto Motor und Sport).
The car's tested by MOT where measured at Oettinger / TÜV Südwest and by AMS where measured at TÜV Bayern / TÜV Südwest.

Grey background:	**means that the measured result are close/above the type approval limit**
Red background:	**means that the measured result are above the type approval limit**

Exhaust emissions after 60.000 km, tested by MOT

US limits (type approval)	**CO 2.2 g/km**	**HC 0.25 g/km**	**NO_x 0.62 g/km**
Audi 80 1.8 S (?)	2.254	0.305	0.577
BMW 325 e (1986)	2.281	0.179	0.454
BMW 735i (?)	2.766	0.225	0.224
Ford Scorpio 2.0i GL (?)	3.35	0.236	0.226
Mazda 626 2.0i (?)	2.083	0.159	0.521
Opel kadett 1.8i (?)	1.092	0.171	0.422
Opel omega caravan 2.0 (?)	2.938	0.527	0.248
Opel omega 2.0 GL (?)	1.344	0.186	0.182
VW Golf 1.8i (?)	3.925	0.495	0.427
Peugeot 205 CTI (1987)	4.825	1.429	0.597
Peugeot 205 CTI (1987) Tune up	1.987	0.200	0.614
Mercedes 230 TE (1989)	4.767	0.570	0.620
Toyota Corolla 1.6 (1989)	5.332	0.823	0.949
VW Passat 1.8 variant (1989)	2.794	0.156	0.481
Celica 2.0 GT (?)	2.023	0.333	0.358

Volvo 740 GL caravan (?)	2.71	0.300	0.605
Alfa Romeo 164 3.0 V6 (1990)	2.265	0.310	0.081
BMW 520 i (1990)	2.560	0.221	0.169
Misubishi Colt GLXi (1990)	0.961	0.171	0.153
Opel vectra 4x4 (1990)	1.892	0.205	0.259
Peugeot 405 break (1990)	2.739	0.184	0.186
Citroen XM (1991)	1.665	0.099	0.429
Fiesta 1.4i (1991)	2.664	0.390	0.405
Mazda 323 F (1991)	1.388	0.121	0.253
Seat ibiza 1.2i GLX (1991)	3.170	0.470	0.360
Audi 100 2.8E Quattro (1992)	1.610	0.200	0.240
Mazda MX-5 (1992)	1.590	0.150	0.320
Nissan Primera 2.0 SLX (1992)	1.910	0.190	0.480
Opel Calibra 16V (1992)	3.660	0.270	0.410
Renault Clio 1.4 RN (1992)	5.050	0.340	0.220
Toyota Previa aut. (1992)	1.110	0.160	0.280
BMW 320 i aut. (1993)	1.220	0.170	0.290
Opel 1.8i Caravan (1993)	1.900	0.150	0.360
Saab 9000 CS 2.3 turbo (1993)	1.920	0.180	0.150
Honda CRX-VTi (1994)	2.080	0.240	0.340
VW Golf VR6 (1994)	3.720	0.280	0.340
Mercedes S 350 (1994) T diesel	0.210	0.056	0.53 / PM. 0.054
European Euro1 limits 1994 (type approval)	**CO 2.7 g/km**	**HC+NO_x 0.97 g/km**	**PM. 0.14 g/km**
Toyota Carina 2.0 GLi Aut.(1994)	2.20	0.85	

Fiat Punto 60 SX (1995)	1.53	0.45	
Mercedes C 200 (1995)	0.61	0.55	
Mazda Xedos 9 2.5i V6 (1996)	1.84	0.76	
Opel Corsa (1995)	1.38	0.46	
Opel Omega (1996)	0.62	0.33	
Renault Twingo Easy (1995)	2.17	0.47	
Nissan Maxima (1995)	0.92	0.34	
VW Golf T 75hk (1993) diesel	0.41	0.62	0.54
Renault Espace (1994) T-diesel	0.78	0.53	0.073
VW Golf TDI (1995) diesel	0.66	0.67	0.06
Mitsubishi Pajero (1995) diesel	0.70	0.92	0.14
Citroen Evasion 1.9 DT SX (1995) diesel	0.54	0.91	0.05
Peugeot 306 XTdt (1996) diesel	0.47	0.76	0.02
European Euro2 limits 1997 (type approval) Gasoline	**CO 2.2**	**HC+NO_x 0.50**	
VW Polo 1.4l 60 hp, (1996) 60.000 km	0.79	0.21	
Audi A8 3.7l 230 hp, (1996), 100.000 km [1]	1.85	1.32	
Skoda Felicia Combi (1996), 100.000 km	1.20	0.32	
Renault Mégane Coach 147 hp(1996)100.000 km [2]	1.72	0.65	
Honda Civic 1.6i ES CVT 114hp(1996)100.000 km	1.37	0.36	
German D3 limits	**CO 1.5**	**HC 0.17**	**NO_x 0.14**

1998 (type approval) Gasoline			
BMW Z3 2.8i Roadster 192hp(1998)100.000 km	0.80	0.20	wrong meas.
Jaguar XJ Executive 4.0 Roadster 284hp(1998)100.000 km	1.40	0.30	wrong meas.
VW Passat variant 1.8l T 150hp (1998), 100.000 km	1.40	0.16	0.37
MCC Smart & Pulse 0.6l 55hp (1999), 30.000 km	0.34	0.16	0.08
Volvo S80 T6 2.8l 272hp (1999), 30.000 km	1.50	0.16	0.17
German D3 limits (type approval) Diesel	**CO 0.6**	**NO_x0.50 / 0.56** [3]	**PM 0.05**
Seat Arosa 1.7 SDI Elektron 60hp(1998) 60.000 km diesel	0.23	0.42 / 0.46	0.07
European Euro4 limits (type approval) Gasoline	**CO 1.0 g/km**	**HC 0.10 g/km**	**NO_x 0.08 g/km**
Ford Focus 1.4l 75hp (1999), 100.000 km	0.25	0.06	0.08
VW Golf 1.4l 75hp (1999), 100.000 km	0.38	0.08	0.14
European Euro4 limits (type approval) Diesel	**CO 1.0**	**HC+NO_x0.70/0.90** [7]	**PM 0.08/0.10** [7]
Citroen Xantia T D12 Activa 109 hp(1997) 100.000 km	1.04	0.66	?
Seat Alhambra 1.9 TDI 90hp(1997) 100.000 km	0.63	0.84	0.09
Mercedes E 290 T 129hp(1997) 100.000 km	0.45	1.06	0.075

Mercedes A 170 CDI 90hp(1999) 100.000 km [4]	0.71	0.37	0.13

1

2

3

4

Cable from Lambda sensor is defective, was not detected in AU test!
With a new Catalyst, changed at 100.000 km
HC + NOx
Bad MAF

Exhaust emissions after 100.000 km, tested by AMS

US limits (type approval)	**CO 2.2 g/km**	**HC 0.25 g/km**	**NO_x0.62 g/km**
Mercedes 230 TE (1989)	4.77	0.570	0.62
Mazda 626 GLX 2.0i (1989)	2.56	0.193	0.14
Mercedes 190 E 2.6 (1989)	6.37	0.604	0.28
Alfa 164 3.0 V6 (1990)	4.89	0.663	0.86
BMW 525i (1990)	5.6	0.520	0.61
Chrysler LeBaron (1990)	5.81	0.845	0.86
Fiat Tipo 1.6i (1990)	4.34	0.445	0.34
Opel vectra 2.0i (1990) bad ign. cable	4.30	0.370	0.34
Opel vectra 2.0i (1990) new ign. cable	2.00	0.160	0.34
Volvo 440 GL (1990)	2.66	0.258	0.09
VW Corrado G60 (1990)	4.40	0.340	0.72
VW Passat 16 V (1990)	5.10	0.360	0.70
Audi V8 3.6 (1991)	8.36	1.390	1.64
Renault 19 TXE (1991)	0.93	0.111	0.11
Suzuki Vitara 1600 (1991)	8.57	0.745	1.03
Audi 100 2.8E Quattro (1992)	2.26	0.260	0.28

Honda Accord 2.2i (1992)	2.38	0.207	0.49
Mazda 323F 1.6i GLX (1992)	1.62	0.168	0.28
Mazda MX-5 (1992)	1.69	0.161	0.38
Lexus LS 400 (1992)	1.61	0.299	0.51
Mercedes 300 SL (1992)	2.57	0.401	0.22
Nissan Primera 2.0 SLX (1992)	3.25	0.550	0.53
Peugeot 605 SV24 (1992)	5.07	0.540	0.36
VW Polo G40 (1992)	7.01	0.514	0.31
BMW 325 i (1993)	3.55	0.284	0.21
Lancia Dedra 2.0i (1993)	2.04	0.314	0.34
Mazda 121 1.4i (1993)	2.54	0.549	0.54
Renault Clio 1.4 RT (1993)	5.71	0.365	0.32
Toyota Previa (1993)	0.65	0.141	0.14
Volvo 850 GLT (1993)	3.62	0.281	0.41
VW Golf VR6 (1993)	3.72	0.280	0.34
Citroen ZX 1.6i (1994)	4.68	0.330	0.72
Mercedes 600 E (1994)	1.39	0.230	0.18
Opel Astra 1.6i (1994)	2.52	0.198	0.38
Peugeot 106 XT (1994)	2.34	0.178	0.25
European limits Euro1 1993 (type approval)	**CO 2.7 g/km**	**HC+NO_x 0.97 g/km**	**PM. 0.14 g/km**
Mazda 626 2.0i (1994)	2.09	0.65	
BMW 540i (1995)	1.73	0.67	
Citroen Xantia 1.8 (1995)	2.87	0.42	
Ford Mondeo 1.8 (1995)	0.98	0.58	
Mitsubishi Colt 1.6 (1995)	4.14	1.67	
Renault Safrane V6 (1995)	1.84	0.26	

Saab 900 (1995)	1.56	0.58	
Toyota Corolla 1.4 (1995)	2.61	1.71	
Mercedes C 180 (1996)	0.92	0.62	
Renault Twingo (1996)	3.62	0.65	
Seat Ibiza (1996)	4.45	1.16	
Opel Corsa (1996)	1.24	0.42	
VW Cabriolet 2.0, 115 hp (1996)	1.37	0.42	
Mazda 323 F 1.5, 88 hp (1996)	1.67	0.32	
Fiat Punto 75 ELX, 74 hp (1996)	1.79	0.37	
Jaguar XJ 6 4.0, 241 hp (1995)	3.76	1.60	
Audi A4 1.8 5V, 125 hp (1995)	0.91	0.39	
European limits Euro2 1997 (type approval) Gasoline	**CO 2.2 g/km**	**HC+NO_x 0.50 g/km**	
Opel Vectra 1.8i 16V, 115 hp (1996)	1.210	0.420	
Ford Fiesta 1.25 16V, 75 hp (1996)	1.400	0.250	
Renault Megane RT 1.6e, 90 hp (1996) [1]	3.120	0.600	
Mercedes E 230, 150 hp (1996)	1.010	0.490	
BMW 735i A V8, 235 hp (1996)	1.380	0.470	
Volvo V40 136 hp (1996), 100.000 km	1.240	0.240	
VW Sharan 2.0 GL, 115 hp (1996), 100.000 km	2.130	0.760	
Fiat Brava 1.6 16V ELV 136 hp (1997), 100.000 km	1.280	0.630	
Toyota RAV4 128 hp	4.390	1.080	

(1996), 100.000 km [2]			
Chrysler Voyager 150 hp (1996), 100.000 km	3.790	1.080	
Audi A3 1.6l 101 hp (1997), 100.000 km	2.770	0.410	
Peugeot 406 break 1.8l 110 hp (1997), 100.000 km	1.490	0.500	
Renault Espace 2.0l 114 hp (1997), 100.000 km	1.980	0.340	
BMW 523 2.5l 170 hp (1997), 100.000 km	0.650	0.340	
Mitsubishi Carisma 1.8l 125hp GDI (1998), 1.598 km	0.230	0.116	
Mitsubishi Carisma 1.8l 125hp GDI (1998), 48.632 km	1.180	0.950	
Mitsubishi Carisma 1.8l 125hp GDI (1998), 101.134 km [3]	0.980	0.870	
Jaguar XK8 4.0l 284hp (1998), 100.000 km	1.670	0.440	
Subaru Forester 2.0l 122hp (1998), 100.000 km	2.040	0.410	
Alfa Romeo 156 1.8l TS 144hp (1998), 100.000 km	1.380	0.290	
Toyota avensis 1.8l 110hp (1998), 100.000 km	0.720	0.325	
Porsche Boxter 3.2l 252hp (1999), 100.000 km	0.300	0.109	
European limits Euro2 1997 (type approval) Diesel	**CO 1.0 g/km**	**NO_x0.70 / 0.90[4] g/km**	**PM 0.8 / 0.1g/km**
Skoda Octavia 1.9l TDI SLX 144hp (1998),	0.540	0.710	0.4590

100.000 km			
Audi A6 2.5 V6 TDI 150hp (1998), 100.000 km	0.635	1.547	0.0275
Mercedes V 220 CDI 122hp (1999), 100.000 km	0.553	0.823	0.0526
German D3 limits 1998 (type approval) Gasoline	**CO 1.5 g/km**	**HC 0.17 g/km**	**NO_x 0.14 g/km**
VW Passat variant 1.8l T 150hp (1997), 100.000 km	1.470	0.480	0.160
Ford Ka 1.3l 60hp (1997), 100.000 km	0.075	0.884	0.068
Mazda 626 2.0l 115hp (1998), 100.000 km	2.490	0.790	0.140
Honda 1.8l LS 136hp (1999), 100.000 km	1.230	0.150	0.070
German D3 limits 1998 (type approval) Diesel	**CO 0.6 g/km**	**NO_x0.50 / 0.56[4] g/km**	**PM 0.05 g/km**
Seat Arosa SDI 1.7l 60hp (1997), 100.000 km	0.706	0.232 / 0.344	0.033
BMW 320d 136hp (1999), 100.000 km	0.277	0.417 / 0.500	0.059
Mercedes A 170 90hp (1999), 100.000 km	0.398	0.534 / 0.582	0.042
European limits Euro3 2000 (type approval)	**CO 2.30 g/km**	**HC 0.20 g/km**	**NO_x0.15 g/km**
Volvo S60 2.4T 200hp (2001), 100.000 km	1.429	0.129	0.116
Peugeot 807 2.2 158hp (2003), 100.000 km	0.790	0.070	0.044
European limits Euro3 2000 (type approval M3)	**CO 5.22 g/km**	**HC 0.29 g/km**	**NO_x0.21 g/km**
Range Rover V8 4.4l 286hp (2003), 100.000 km	1.360	0.200	0.094

European limits Euro3 2000 (type approval) Diesel	**CO 0.64 g/km**	**NO_x0.50 / 0.56[4] g/km**	**PM 0.05 g/km**
Citroen Picasso 2.0l HDI 90hp (2000), 100.000 km	0.901	0.502 / 0.579	0.023
Audi A4 1.9 TDI 130hp (2002), 100.000 km	0.163	0.399 / 0.422	0.027
Renault Laguna 2.2l dCi 150hp (2002), 100.000 km	0.380	1.110 / 1.130	0.020
Citroen C5 2.0l HDI 133hp (2002), 100.000 km	0.190	0.720 / 0.750	0.0017
Ford Mondeo 2.0l TDCI 130hp (2002), 100.000 km	0.390	0.490 / 0.530	0.037
Toyota Corolla Verso 2.0l D-4D 90hp (2002), 100.000 km	0.134	0.519 / 0.530	0.028
Peugeot 307 2.0l HDi FAP 107hp (2002), 100.000 km	0.088	0.660 / 0.690	0.0017
BMW 740d 3.9l 258hp (2003), 100.000 km	0.080	0.380 / 0.410	0.039
Hyundai Tucson 2.0 113hp (2005), 100.000 km	0.23	0.34 / 0.42	0.037
European limits Euro3 2000 >1700 kg (type approval) Diesel	**CO 0.95 g/km**	**NO_x0.78 / 0.86[4] g/km**	**PM 0.1 g/km**
Chrysler Voyager 2.5l CRD 142hp (2002), 100.000 km	0.256	0.978 / 1.015	0.032
Volvo XC 90 2.4 163hp (2003), 100.000 km	0.160	0.759 / 0.781	0.046
Land Rover Discovery TDV6 2.7 190hp (2006), 100.000 km [5]	0.700	0.730 / 0.610	0.026
German D4 limits 1998 (type approval) Gasoline	**CO 0.7 g/km**	**HC 0.08 g/km**	**NO_x 0.07 g/km**

VW Golf 2.0l 115hp (1999), 100.000 km	0.667	0.057	0.085
Ford Focus 2.0i Turnier 130hp (1999), 100.000 km	0.361	0.044	0.064
Jaguar X-Type 3.0 V6 (2002), 100.000 km	0.680	0.110	0.054
European limits Euro4 2005 (type approval) Gasoline	**CO 1.00 g/km**	**HC 0.10 g/km**	**NO_x0.08 g/km**
Opel Corsa 1.2 75hp (2002), 100.000 km	0.260	0.082	0.062
VW Polo 1.4 75hp (2002), 100.000 km	0.370	0.100	0.060
Mazda 6 2.3 166hp (2002), 100.000 km	1.240	0.060	0.050
Opel Vectra 2.2 147hp (2003), 100.000 km	0.790	0.050	0.053
Ford Fusion 1.6 100hp (2003), 100.000 km	0.280	0.031	0.025
Mercedes C320 3.2 218hp (2002), 100.000 km	0.376	0.035	0.025
Renault Mégane 2.0 16V 135hp (2003), 100.000 km	0.500	0.080	0.039
Nissan Micra 1.2l 80hp (2003), 100.000 km	1.180	0.099	0.098
Audi A8 4.2 335hp (2003), 100.000 km	1.300	0.075	0.031
Opel Meriva 1.8l 125hp (2004), 100.000 km	0.440	0.020	0.040
Toyota Prius 1.5 78/68hp (2004), 100.000 km	0.150	0.020	0.006
Mazda MX-5 2.0l 160hp (2006), 100.000 km [6]	0.370	0.021	0.007
Opel Zafira 1.8 140hp (2006), 100.000 km	0.240	0.060	0.050
BMW 330xi Touring	0.250	0.060	0.020

3.0l 258hp (2006), 100.000 km			
Renault Clio 1.6l 16V 112hp (2006), 100.000 km	0.330	0.080	0.020
VW Passat Variant 2.0 TFSI 200hp (2007), 100.000 km	0.290	0.070	0.010
European limits Euro4 2005 (type approval) Diesel	**CO 0.50 g/km**	**NO_x0.25 / 0.30[4] g/km**	**PM 0.025 g/km**
VW Golf 2.0 140hp (2005), 100.000 km	0.480	0.150 / 0.220	0.046
Audi A6 3.0 225hp (2005), 100.000 km	0.260	0.260 / 0.290	0.0002
Opel Astra 1.9 150hp DPF (2005), 100.000 km	0.480	0.200 / 0.240	0.0005
Fiat Panda 1.3 70hp (2004), 100.000 km	0.390	0.320 / 0.350	0.024
BMW 535d 3.5l 272hp (2006), 100.000 km	0.460	0.180 / 0.262	0.000
Mercedes ML 320 CDI 224hp (2006), 100.000 km	0.220	0.240 / 0.260	?.?
Ford S-Max 2.0 TDCi 140hp (2007), 100.000 km	0.490	0.230 / 0.280	?.?
Dacia Logan MCV 1.5l DCI 68hp (2007), 100.000 km	0.300	0.240 / 0.270	0.018
European limits Euro4 2005 (1700> kg / type approval) Diesel	**CO 0.74 g/km**	**NO_x0.39 / 0.46[4] g/km**	**PM 0.006 g/km**
VW T5 Multivan 2.5 175hp (2005), 100.000 km	0.163	0.461 / 0.489	0.0570
Audi Q7 3.0l TDI 233hp (2007), 100.000 km	0.290	0.300 / 0.340	0.0006

Grey background: means that the measured result are

	close/above the type approval limit
Red background:	means that the measured result are above the type approval limit

1	
2	Catalyst changed at 45.423 km
3	Ignition cable and Lambda sensor cable destroyed by a marten
4	Sealant between the catalyst and the housing of the muffler was damaged
5	HC + NOx
6	Particulatefilter refitted Catalyst exchanged

Exhaust emission standards

Country			x		
US limits MY 1983 [1]	2.10	0.25	0.62	0.124	2.0
US limits MY 1994	2.10	0.16	0.25	0.08	2.0
US limits MY 2003	1.06	0.08	0.12	0.08	2.0
Californien MY 1993	2.10	0.16	0.25	0.08	2.0
Californien MY 1994 [2]	2.10	0.08	0.12	0.08	2.0
Californien MY 1997 [3]	2.10	0.047	0.12	0.08	2.0
Californien MY 1997 [4]	1.06	0.025	0.025	0.08	2.0
Californien MY 2003 [5]	0	0	0	0	0
Australian MY 1997	2.10	0.26	0.63		2.0
Japan	2.10	0.25	0.25	0.20	2.0

Europe, Gasoline	CO g/km	HC g/km	NO_x g/km	PM. g/km	Evap. g/test
Euro 1, 91/441/EEC, EU limits 12/1992	2.720	0.97 [6]			2.0
Euro 1, Conformity, 91/441/EEC, EU limits 12/1992	3.160	1.13 [6]			2.0
Euro 2, Gasoline, 94/12/EEC, EU limits 01/1997	2.200	0.50 [6]			2.0
Euro 3, Gasoline, 98/69/EEC, EU limits 2001 (all models) [8] [9]	2.300	0.200	0.150		2.0
Euro 4, EU limits 2006 (all models), Gasoline	1.000	0.100	0.080		2.0
Euro 5, EU limits 2009 (all models), Gasoline	1.000	0.100	0.060	0.005 (DI)	2.0
Euro 6, EU limits 2014 (all models), Gasoline	1.000	0.100	0.060	0.005 (DI) [10]	2.0
D3, Germany, -->31.12.1999, from 1.1.2000--> it is Euro 3,	1.500	0.170	0.140		2.0
D4, Germany, -->31.12.2004	0.700	0.080	0.070		2.0
Europe, Diesel	CO g/km	$HC+NO_x$ g/km	NO_x g/km	PM. g/km	Evap. g/test
Euro 2, EU limits 01/1997,	1.00	0.70 / 0.90 [7]		0.08 / 0.10 [7]	

Diesel, 94/12/EEC					
Euro 3, EU limits 2001 (all models), Diesel, [8]	0.64	0.56	0.50	0.050	
Euro 4, EU limits 2006 (all models), Diesel	0.50	0.30	0.25	0.025	
Euro 5, EU limits 2009 (all models), Diesel	0.50	0.23	0.18	0.005	
Euro 6, EU limits 2014 (all models), Diesel	0.50	0.17	0.08	0.005 [10]	
D3, Germany, -->01.1999, from 01.1999-> it is Euro 3, diesel	0.60	0.56	0.50	0.050	
D4, Germany, Diesel	0.47	0.30	0.25	0.025	

The US limits are not tested at the same cycle as the European, so it is a assumption, they can not actually be compared.
[1] MY = Model Year
[2] TLEV 10 % of manufactors production
[3] LEV 25 % of manufactors production
[4] ULEV 2 % of manufactors production
[5] ZEV 10 % of manufactors production (Manufactors selling more than 3000 cars a year)
[6] HC + NO_x
[7] Indirect injection / Direct injection
[8] 40 sec. runing before start of test is not permited
[9] From year 2002 a cold start test by -7° C must be included
[10] Number of Particles has to be defined

1 km is 0.62137 mile.