

Asphalt in figures

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Key figures of the European asphalt industry in 2001

In this overview, between a number of European countries, data refer to asphalt production, application and the use of binders. Furthermore several reference data on the road in general are given.

The data have been established with the assistance of the members of the European Asphalt Pavement Association, and are at the moment the best available and reliable for the asphalt industry.

(A blank means no data are supplied or available; '-' means the number is insignificant; "...*"figure not provided.)

Total Production of Hot Mix Asphalt in 1996 - 2001 (in million tonnes)

Country	1996	1997	1998	1999	2000	2001
Austria	6,4	6,1	6,5	6,5	5,9	9,5
Belgium	3,8	4,6	4,2	5,0	4,8	4,5
Croatia	1,5	1,7	1,6	1,7	1,7	1,8
Czech Republic	4,5	4,4	4,3	4,6	4,7	4,3
Denmark	3,6	3,5	3,1	3,3	3,3	2,8
Estonia	0,5	0,4	0,5	0,7	0,7	0,6
Finland	4,1	4,0	3,7	4,1	3,8	3,6
France	36,7	38,6	38,0	39,5	39,9	40,5
Germany	62,0	65,0	63,5	68,5	65,0	63,0
Greece	5,0	5,2	5,8	6,5	6,5	6,5
Hungary	2,3	2,6	2,8	2,4	2,5	2,9
Iceland				0,3	0,3	0,3
Ireland	2,1	2,4	2,4	2,6	2,9	3,1
Italy	37,0	39,8	40,9	41,0	37,3	39,8
Latvia	0,4	0,4	0,4	0,7	0,6	0,6*
Netherlands	7,7	7,9	7,5	8,4	7,5	7,7
Norway	4,9	5,0	5,0	4,8	4,5	4,1
Poland	7,5	8,0	8,0	10,0	11,6	11,2
Portugal	5,9	8,1	9,5	7,7	5,6	5,5
Romania			1,5	1,7	2,8	2,5
Slovakia	1,8	2,1	2,0	2,0	1,1	1,1
Slovenia	1,8	1,8	1,4	1,8	1,8	1,4
Spain	27,3	23,9	25,7	25,7*	30,0	30,0*
Sweden	5,8	5,3	6,3	7,3	7,2	6,7
Switzerland	4,5	4,5	4,7	5,1	5,2	5,1
Turkey			12,2	9,5	10,7	11,3
United Kingdom	29,3	27,5	27,5	26,0	25,5	26,5
Europe	266,4	272,8	289,0	297,4	293,4	296,9
Israel	5,1		5,3	5,3	5,1	5,6
Australia	6,4	6,8	6,7	7,0	6,5	6,7
Japan	78,2	75,1	70,1	71,4	71,0	69,4
Ontario	12,3	13,0	13,5	14,0	14,5	14,0
Canada		33,0				
New Zealand	0,5	0,6	0,7	0,7*	0,7*	0,6
South Africa	2,0					
U.S.A.	475,0	500,0	515,0	600,0	590,0	572,0

Application in wearing-, binder- and base courses in % of total annual HMA production

Country	Wearing course	Binder course	Base course
Austria	50		50
Belgium	51		49
Croatia	58	2	40
Denmark	46	6	48
Estonia	67	33	-
Germany	35	15	50
Hungary	50	24	26
Iceland	95	5	0
Ireland	39	21	40
Italy	60	20	20
Netherlands	35	9	56
Norway	80	10	10
Portugal	44	26	30
Slovenia	38	62	
Sweden	50	15	35
Switzerland	15	30	55
Japan	79	13	8
Ontario	40	60	
New Zealand	90	5	5

Stone Mastic Asphalt

Country	Total area in million m ²	% of total annual production in '01	In '01 applied area in million m ²
Austria		30	
Belgium		15	8
Croatia	0,2	3	0,06
Czech Republic		13,8	3,8
Denmark	19,4	3,7	1,2
Estonia	0,15	3	0,15
Finland		0,22	
Germany	> 200	5	
Hungary	9,25	0,9	0,25
Iceland		3	
Ireland		4	1,12
Netherlands	49	9	11
Norway		5	
Poland	15,7	6	7,7
Slovakia			0,36
Slovenia	4	3,9	0,72
Sweden		20	
Turkey	2,4	0,13	0,12
Israel		0,65	0,36
Japan	2,56		0,48
New Zealand		1,5	

Béton Bitumineux Mince

Country	Total area in million m ²	% of total annual production in '01	In '01 applied area in million m ²
Austria		7	
Belgium		34	16
Portugal		1,2	
Switzerland		1,5	9
Japan	1,45		0,16
New Zealand		0,2	

Porous Asphalt

Country	Total area in million m ²	% of total annual production in '01	In '01 applied area in million m ²
Austria		1	
Belgium		2	1
Czech Republic			0,5
Denmark		0,3	0,2
France	> 45		
Greece	1,2		
Iceland	< 0,1		
Ireland		3	0,84
Italy	13	0,2	1
Netherlands	48	6	5
Portugal		1,2	
Slovenia	0,2	0,1	0,02
Sweden		2	
Switzerland		2	11
Israel		0,4	0,22
Japan	100	3,5	27
New Zealand		5	

Hot Rolled Asphalt

Country	% of total production 1999	% of total production 2000	% of total production 2001
Ireland	18	17	12
United Kingdom	17		

Cold Bituminous Mixes (annual tonnage)

Country	1999 (tonnes)	2000 (tonnes)	2001 (tonnes)
Austria		50.000	20.000
Croatia	3.000	3.000	5.000
Czech Republic	12.600	5.800	5.400
Denmark	0	0	0
Finland	920.000	630.000	700.000
France	1.500.000	1.500.000	1.500.000
Greece	2.000	1.000	1.000
Hungary	5.600	23.500	8.620
Ireland	122.000	120.000	200.000
Italy			70.000
Latvia	0	0	
Netherlands	27.000	25.000	35.000
Norway	100.000	140.000	149.000
Poland	38.000	40.000	39.000
Portugal	200.000	247.000	180.615
Romania	250.000		300.000
Slovakia	2.600*	0	0
Spain	1.100.000*	600.000	
Sweden	750.000	600.000	850.000
Switzerland			500.000
Turkey	2.001.400	1.948.700	715.400
Israel	17.000	15.500	15.000
Japan	671.200	690.000	243.000**
New Zealand	4.000*		20.000

** Production in Mixing Plants only

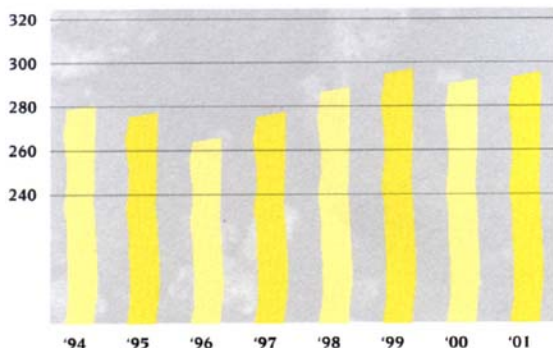
Application of Slurry Seal and Micro-Surfacing / Surface Dressing in million m²

Country	SS & MS 2001	Trend '01/00	SD 2001
Croatia	0,18	<	0,08
Czech Republic	2,5	=	6,5
Denmark	0,4	<	5,4
Estonia	-	<	3,9
Finland	0	=	1
France	25	>>	330
Greece	0,1	<	
Hungary	0,5	=	6,9
Iceland		>	4,2
Ireland	0,15	<<	14
Italy	3,5	>	5,5
Netherlands	1	=	1
Norway	0	<	0,97
Poland	0,4	<	0,4
Portugal	4,5	=	5
Romania	0,6	<	12
Slovakia			0,77
Slovenia	0,1	<	0,07
Sweden	0,7	=	11
Switzerland	0,3	=	0,3
Turkey	-	<<	216
Israel	0,52		-
Japan	0,06	=	-

Recycling

Country	available materials (x 1.000 tonnes)	% actually used in warm recycling	% of the new production which contains reclaimed material
Austria			3
Belgium	1.500	20-45	25
Croatia	20.000	0	10
Czech Republic	710	10-40	16
Denmark	220	57	31
Finland	200	40	5-10
France	< 5.000	10-45	< 10
Germany	15.000	15-80	60-65
Hungary	1.200	0,3	
Iceland	5	0	0
Ireland	-	-	-
Italy	13.000	15	5
Netherlands	30.000	70	60
Norway	520	6	4
Poland	750	15-30	0,3
Romania	80	20-40	40
Slovakia	5		
Slovenia	50	60	15
Sweden	1.000	15	019
Switzerland	1.750	15	
United Kingdom	5.000		
Japan	43.400	33	
Ontario	1.500	30	35
New Zealand	-	-	-

Total Production of Hot Mix Asphalt in Europe (in million tonnes)



Consumption of bitumen in the road Industry (in million tonnes)

Country	Tonnage '01	% Mod. '99	% Mod. '00	% Mod. '01	Emulsions
Austria			11		
Belgium	0.22	16	15	18	-
Croatia	0,099	1,54	2	3,5	0,008
Czech Republic	0.24	15,9	12,5	17,5	0.02
Denmark	0.15	5	5	5	0.02
Estonia	0.04				
Finland	0.25	1	1	1	0.01
France	3,11	10	10	< 10	1,03
Germany	2,573	8,4		13,7	0,13
Greece	0.4			0,1	0,01
Hungary	0,148	0,5	1,3	10,3	0,02
Iceland	0.03			0	
Ireland	0.25	7	8	10	0,02
Italy	1,95	6,7	7,3	7,4	0,13
Netherlands	0.35	6,5	6,5	6,7	0,028
Norway	0.24	< 1	< 1	3	0,009
Poland	0.65	6	6	6	0,085
Portugal	0,535	0,015	2,84	11	0,107
Romania					0,04
Slovakia	0,053			20	
Slovenia	0,066	9	8	9	0,001
Sweden	0,368	3	3	2	0,06
Switzerland	0.27		6		
Turkey	1.03			0,42	0,007
United Kingdom	1.9			5	0,15
Israel	0,245			0,61	0,017
Australia	0,71		9	10	0,05
Japan	3,404	9,5	10,6	11	0,292
New Zealand	1,52				0,02

Companies in the asphalt industry

Country	Production only	Production & Laying	Laying only
Austria	60	70	10
Belgium	13	20	> 40
Croatia	0	37	21
Czech Republic	12	22	~ 40
Denmark	0	9	~ 10
Estonia	2	11	6
Finland	0	20	15
France	0	30	> 1,000
Germany	320	180	~ 3,200
Greece	30	70	50
Hungary	2	26	6
Iceland		8	6
Ireland	1	25	45
Israel	1	22	20
Italy	30	620	> 3,500
Latvia	1*	17*	7*
Netherlands	29	15	59
Norway	0	15	30
Poland	2	290	30
Portugal	5	85	33
Slovakia		13	
Slovenia	3	13	> 5
Spain		175*	
Sweden	17	55	37
Switzerland	45	53	> 250
Turkey	3	110	-
United Kingdom	30	25	> 1,000
Europe	606	2036	> 9,420
Australia	27	27	> 100
Japan		949**	
Ontario	50	50	100
New Zealand	1	12	2

** Including Production only

Interesting sites on the internet:

http://www.eapa.org	European Asphalt Pavement Association
http://www.fas.se	Swedish Asphalt Pavement Association
http://www.siteb.it	Italian Asphalt Association
http://www.sdruzeni-silnice.cz	Association of Road Contractors Praha
http://www.vbvafalt.org	Dutch Asphalt Pavement Association
http://www.asfaltindustrien.dk	Danish Asphalt Pavement Association
http://www.asfaltliitto.fi	Finnish Asphalt Association
http://www.usirf.asso.fr	French Asphalt Pavement Association
http://www.asfalt.de	German Asphalt Association
http://www.hapa.hu	Hungarian Asphalt Pavement Association
http://www.qpa.org	UK Quarry Products Association
http://www.rpl.pt/aporbet	Portuguese Asphalt Pavement Association
http://www.zdrunenje-zas.si	Slovenian Asphalt Pavement Association
http://www.asmdm.org.tr	Turkish Asphalt Contractors Association
http://www.lr.ro/apdp/indexe.htm	Romanian Professional Association of Roads and Bridges
http://www.mischgut-industrie.ch	Schweizerische Mischgut-Industrie
http://www.asphalt.or.at	Gestrata
http://www.ramtech.hr	Croatian company for the Testing, Research & Consulting in Asphalt Technology
http://www.malbik.is	HOFDI Asphalt Plant

Number of Production Sites

Country	Stationary plants		Mobile plants		Number fit for warm recycling	
	2000	2001	2000	2001	2000	2001
Austria	115	130	0	0	12	3
Belgium	43	42	0	0	15	15
Croatia	58	60	3	4	4	4
Czech Republic**	107	105	2	2	40	40
Denmark	52	48	3	2	50	46
Estonia	20	18	4	4	3	4
Finland**	66	65	32	24	21	23
France	401	404	96	100	5	5
Germany	740	740	10	5	700	700
Greece	150	50	15	100	-	-
Hungary	74	76	3	4	10	3
Iceland	5	6	3	3	1	1
Ireland	48	50	13	15	5	8
Italy	650	650	15	15	140	150
Latvia	23	23*	4	4*	2	2*
Netherlands	56	56	0	0	49	51
Norway**	70	95	30	12	10	10
Poland	350	300	7	20	12	14
Portugal	10	40	120	171	5	6
Slovakia	40*	40	0	0	-	-
Slovenia	16	16	0	0	0	0
Spain	300*	300*	120*	120*	-	-
Sweden	96*	96	16*	16	45*	45
Switzerland	127	129	1	2	30	35
Turkey***	201	215	27	27	-	-
United Kingdom	300	300	10	10	-	-
Europe	4.118	4.054	534	660	1.159	1.165
Israel	32*	32	-	-	-	-
Australia	106	105	8	9	20	22
Ontario	-	120	-	45	-	125
Japan	1.477	1.469	22	22	1.262	1.216
New Zealand	40*	30	7*	8	-	11

** A number of plants is operated and owned by the road administration

*** A number of plants is operated and owned by the road administration and municipalities

<http://www.eurobitume.org>

European Bitumen Association

<http://www.oecd.org/cem>

Organisation for Economic Cooperation and Development

<http://www.piarc.org>

World Road Association (PIARC)

<http://www.europe.eu.int>

European Community Institutions (incl. Eurostat)

<http://www.erf.be>

European Road Federation

<http://www.fehrl.org>

Forum of European National Highway Research Laboratories

<http://www.eota.be>

European Organisation for Technical Approvals

<http://www.eccred.org>

The European Council for Construction Research, Development and Innovation

<http://www.cenorm.be>

European Committee for Standardization

<http://www.flec.be>

European Contractors Organisation

<http://www.ebrd.com>

European Bank for Eastern Europe

<http://www.eib.org>

European Investment Bank

<http://www.rilem.org>

RILEM

<http://www.hotmix.org>

US Hot Mix Asphalt Association

<http://www.aapa.asn.au>

Australian Asphalt Pavement Association

<http://www.asphaltinstitute.org>

US Bitumen Organisation

<http://www.ohmpa.org>

Ontario Hot Mix Producers Association

<http://www.sabita.org>

South African Asphalt and Bitumen Association

<http://www.dohkenkyo.or.jp>

Japanese Road Contractors Association

<http://www.bitumen.org.nz>

New Zealand Asphalt and Bitumen Association