



EAPA

EUROPEAN ASPHALT PAVEMENT ASSOCIATION

ASPHALT IN FIGURES

2007



EAPA is the European industry association which represents the manufacturers of bituminous mixtures and companies engaged in asphalt road construction and maintenance and it has the mission to promote the good use of asphalt in the creation and maintenance of a sustainable European road network.

Conscious of the importance of providing information to the public, EAPA is pleased to present to you the data of 'Asphalt in Figures' for the year 2007.

Mr. Alan Mackenzie
President EAPA

Key figures of the European asphalt industry in 2007

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. All figures are in metric tonnes.

→ Total Production of Hot Mix Asphalt in 2002 - 2007 (in million tonnes)

Country	2002	2003	2004	2005	2006	2007
Austria	10,0	10,0	10,0	10,0	10,0	9,5
Belgium	4,5	4,8	4,9	5,2	5,0	4,5
Croatia	1,9	3,5	3,0	3,8	3,7	3,7*
Czech Republic	4,4	5,8	5,5	5,6	7,4	7,0
Denmark	2,8	2,9	3,6	3,2	3,4	3,3
Estonia	1,1	0,9	1,1	1,2	1,5	1,5
Finland	3,9	4,9	5,6	6,2	5,5	5,9
France	39,4	38,7	40,5	40,1	41,5	42,3
Germany	58,0	55,0	52,0	57,0	57,0	51,0
Great Britain	27,8	27,8	26,9	27,9	25,7	25,7
Greece	6,5*	6,5*	7,0	7,0*	7,8	8,0
Hungary	3,2	3,1	3,0	3,8	4,4	3,3
Iceland	0,2	0,2	0,3	0,3	0,3	0,3
Ireland	3,2	3,3	3,4	3,4	3,5	3,3
Italy	39,9	42,4	46,0	40,1	39,9	35,1
Latvia	0,6*	0,6*	0,6*	0,6*	0,6*	0,6*
Lithuania						1,7
Luxembourg					0,6	0,6
Netherlands	7,9	7,9	7,9	8,6	9,8	10,2
Norway	3,9	4,1	4,5	5,1	5,1	5,9
Poland	10,8	12,0	12,7	15,0	18,0	18,0*
Portugal	6,0	6,0*	9,5	11,1	8,9	9,0
Romania	2,8	2,8*	2,8*	2,8*	2,8*	3,2
Slovakia	1,2	1,2	1,0	1,8	2,2	2,2*
Slovenia	1,4	1,6	1,7	1,5	2,2	2,1
Spain	30,0*	30,0*	38,9	41,5	43,4	49,9
Sweden	6,7	6,6	6,8	7,2	7,3	7,7
Switzerland	5,0	4,8	4,6	4,7	5,4	5,2
Turkey	14,7	13,2	11,3	16,6	18,9	22,2
Europe	297,8	300,6	315,1	320,9	341,7	342,9
Australia	7,0	6,5	6,9	7,7	7,7	9,0
Japan	68,1	63,7	60,2	57,3	56,6	54,9
New Zealand	0,7	0,8	0,8	0,9	0,9	0,9
Ontario - Canada	14,0	13,0	11,0	13,0	13,0	13,2
U.S.A.	500,0	500,0	475,0	500,0	500,0	500,0
Venezuela			6,6	9,5	22,0	

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

Country	Surface course	Binder course	Base course
Austria	40		60
Belgium	51		49
Czech Republic	57	20	23
Denmark	40	7	53
Estonia	66	29	5
Finland	91	9	
Germany	30	19	51
Great Britain	49		51**
Greece	40	30	30
Hungary	58	30	12
Iceland	95	5	
Ireland	40	20	40
Italy	50	30	20
Lithuania	33	35	32
Luxembourg	33	64	3
Netherlands	36	8	56
Norway	80	10	10
Portugal	35	35	30
Romania	22	28	50
Slovenia	56	30	14
Spain	54	25	21
Sweden	40	20	40
Switzerland	24	22	54
Turkey	60	22	18
Japan	80,2	12,4	7,4
Ontario - Canada	55	10	35

**] Base course + Binder course

→ Surface courses with Asphalt Concrete - EN 13108-1

Country	% of total annual hot and warm mix asphalt production in 2007	In 2007 applied area in million m ²	Total area in million m ² incl. 2007
Austria	25,0	9,5	
Belgium	37,3		
Croatia			
Czech Republic	48,5	31,0	
Denmark	20,7	8,8	
Estonia	60,0		
Finland	86,0		
Germany	20,0		
Greece	39,7	26,8	
Hungary	47,1		
Iceland	90,0		
Italy	45,0	350,0	
Ireland	0,0	0,0	
Lithuania	25,0	3,5	
Luxembourg	19,0	0,9	
Netherlands	16,0		
Poland			
Portugal	10,5	8,4	
Romania	4,0	20,0	
Slovenia	31,0	7,6	
Spain	48,0	221,9	
Sweden	32,0	35,0	
Switzerland	13,0	3,4	
Turkey	59,8	110,6	
Ontaria - Canada	50,5		

→ Surface courses with BBTM - EN 13108-2

Country	% of total annual hot and warm mix asphalt production in 2007	In 2007 applied area in million m ²	Total area in million m ² incl. 2007
Austria	3,0	1,1	
Belgium	2,0	1,2	
Czech Republic	0,5	0,3	
Greece	0,3	0,2	
Ireland	0,5	0,2	
Portugal	5,3	4,2	
Romania	2,0	10,0	
Spain	3,5	47,6	
Switzerland	4,0	1,1	19,3

→ Surface courses with Hot Rolled Asphalt - EN 13108-4

Country	% of total annual hot and warm mix asphalt production in 2007	In 2007 applied area in million m ²	Total area in million m ² incl. 2007
Ireland	21,80	6,47	
Portugal	3,50	2,80	
Romania	8,80	50,00	
Japan		0,02	1,79

→ Surface courses with Stone Mastic Asphalt - EN 13108-5

Country	% of total annual hot and warm mix asphalt production in 2007	In 2007 applied area in million m ²	Total area in million m ² incl. 2007
Austria	10,0	3,8	
Belgium	9,6	5,3	
Czech Republic	6,2	3,3	
Denmark	7,8	3,0	32,7
Estonia	6,0		
Finland	5,0		
Germany	9,0		
Hungary	9,5		
Iceland	5,0		
Ireland	0,0	0,0	
Italy	2,5	15,0	
Lithuania	8,0	1,6	
Luxembourg	16,0	0,8	
Netherlands	9,0	12,0	
Portugal	0,7	0,6	
Romania	8,8	20,0	
Slovenia	3,9	0,8	
Spain	1,3	14,2	
Sweden	6,0	10,0	
Switzerland	0,0	0,0	
Turkey	0,2	0,4	3,4
Japan		1,4	10,2
Ontaria - Canada	4,0		

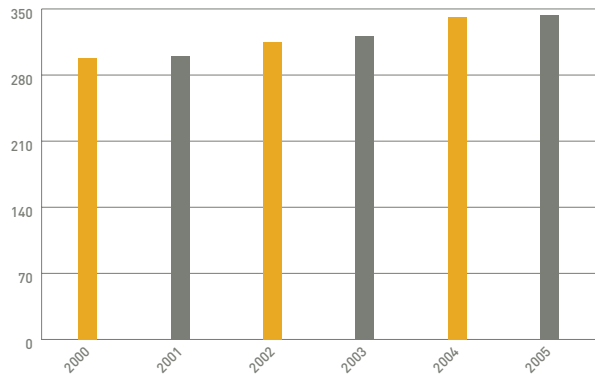
→ Surface courses with Mastic Asphalt - EN13108-6

Country	% of total annual hot and warm mix asphalt production in 2007	In 2007 applied area in million m ²	Total area in million m ² incl. 2007
Austria	1,00	0,38	
Belgium	0,24	0,13	
Czech Republic	1,30	0,70	
Denmark	0,01	0,01	
Germany	1,00		
Hungary	1,70		
Portugal	2,80	2,30	
Sweden	2,00	2,00	
Switzerland	6,00	1,60	
Japan		0,14	6,0

→ Surface courses with Porous Asphalt - EN13108-7

Country	% of total annual hot and warm mix asphalt production in 2007	In 2007 applied area in million m ²	Total area in million m ² incl. 2007
Austria	2,00	0,76	
Belgium	0,86	0,50	
Czech Republic	0,50	0,20	
Denmark	0,15	0,09	2,0
Ireland	1,10	0,33	
Italy	2,50	15,00	60,0
Luxembourg	1,50	0,06	
Netherlands	11,00		
Portugal	10,50	8,40	
Slovenia	0,12		
Spain	1,20	17,00	
Sweden	0,00	0,00	
Switzerland	7,00	1,80	22,2
Japan	4,40	18,20	59,6
Ontaria - Canada	0,50		

→ Total Production of Hot Mix Asphalt in Europe (in milion tonnes)



→ Cold Bituminous Mixes (annual tonnage)

Country	2005 (tonnes)	2006 (tonnes)	2007 (tonnes)
Austria	60 000	60 000	60 000
Belgium	34 000	34 000	29 000
Croatia	10 000	10 000	
Czech Republic	7 830	13 230	5 500
Denmark	≈ 0	≈ 0	≈ 0
Estonia	0	0	0
Finland	0	0	
France	> 1,700,000	> 1,900,000	> 1,900,000
Greece		0	0
Hungary	5 334	8 500	1 676
Iceland	7 400	6 000	6 000
Ireland	200 000		195 000
Italy	80 000		80 000
Lithuania			112 000
Luxembourg		3 000	0
Netherlands		30 000	0
Norway	27 000	7 000	9 000
Poland	57 000	55 000	
Portugal			125 000
Romania			22 000
Slovakia	700	116	
Slovenia	≈ 0	≈ 0	≈ 0
Spain	350 000	318 000	325 000
Sweden	600 000	700 000	150 000
Switzerland	470 000	510 000	460 000
Turkey	1 290 000	1 166 000	1 287 902
Japan	162 600	157 200	184 000
Venezuela			

→ Production of Warm Mix Asphalt in 2007 (annual tonnage)

For this table Warm Mix Asphalt is defined as mixtures produced by using special techniques and/or additives to reduce the production temperature. The production temperature is between 100°C and 150°C.

Country	2007 (million tonnes)
Czech Republic	0,001
Finland	0,950
	including Soft asphalt: EN 13108-3.
France	0,500
Luxembourg	0,005
Netherlands	0,020
Norway	≈ 0
Portugal	> 0,1
Slovenia	0,001
Spain	0,125
Sweden	0,800
	including Soft asphalt: EN 13108-3.
Switzerland	0,600
Ontario - Canada	1,000

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

Country	SS&MS 2007	Trend '06/'07	SD 2007
Czech Republic	1,000	=	1,40
Denmark	0,040	<	4,40
Estonia	0,000	<	13,10
Finland	0,000	=	3,90
France	26,000	=	< 330
Greece	0,200	<	0,00
Iceland	0,100	=	4,00
Ireland	0,150	=	14,00
Italy	3,500	=	6,00
Lithuania	0,260	=	3,03
Netherlands	1,000	=	5,00
Norway		=	1,00
Portugal	2,900	<	9,40
Romania	0,600		
Slovenia	0,200	>	0,20
Spain	21,800	=	
Sweden	0,400	<	8,00
Switzerland	0,380	=	0,38
Turkey	0,530	>	340,00
Japan	0,004	=	

→ Recycling

Country	Available reclaimed asphalt (tonnes)	% of available reclaimed asphalt used in				% of the new hot and warm mix production that contains reclaimed material
		Hot and warm recycling	Half warm recycling	Cold recycling	Unbound layers	
Austria	1 500 000	10		15	75	
Belgium	1 300 000	50	0			38
Czech Republic	650 000	50		35	15	10
Denmark	479 000	57	0	0	43	53
France	6 500 000	13		< 2		< 10
Germany	14 000 000	82			18	60
Greece	0	0	0	0	0	0
Great Britain	4 000 000					
Ireland	60 000	40		0		2,5
Italy	14 000 000	20				30
Luxembourg	155 000	90		10		40
Netherlands	3 500 000	90			10	67
Norway	615 000	8	≈ 0	26	54	6
Portugal	400 000	60	0	0	10	30,0
Romania	20 000	60	10	15	15	5,0
Slovenia	20 000	50		10		15
Spain	1 250 000	45		15	40	8,0
Sweden	900 000	60	25	10	5	50
Switzerland	980 000	50		50*****		17,0
Japan						72,5
Ontario - Canada	3 500 000	60		15	5	60,0
U.S.A.	100 000 000	95 ****				
Venezuela	8 970 000	0		16		0

**** This percentage is recycled in total (hot & cold recycling)

***** This percentage is recycled in half warm + cold recycling + unbound layers

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

Country	Tonnage in 2007	% Modified bitumen (of total) in 2005	% Modified bitumen (of total) in 2006	% Modified bitumen (of total) in 2007	Emulsions in 2007
Austria	0,50	60	50	20	0,025
Belgium	0,20	23	20	19	
Czech Republic	0,47	19	19	20	0,040
Denmark	0,17	5	5	5	0,020
Estonia	0,09	0	0	0	0,030
Finland	0,30	2	1	0,5	0,010
France	3,52	< 10	< 10	< 10	0,970
Germany	2,15	22,7	23	22,5	
Great Britain	1,48	7,0	7,0	7,0	0,130
Greece	0,40		5,0	6,0	0,015
Hungary	0,20	30,6	32,3	25	0,000
Iceland	0,03	0			
Ireland	0,26	10	10,2	10,8	0,020
Italy	1,70	8,7	11	13,6	0,085
Lithuania	0,11			10	0,010
Luxembourg	0,04		15	18	
Netherlands	0,35	3	7		
Norway	3,20	1	≈ 0	≈ 0	0,003
Portugal	0,46	4		20	0,035
Romania	0,18			65	0,090
Slovenia	0,10	18	12	15	0,003
Spain	2,15	8,5	12,9	13,9	0,112
Sweden	0,50	2	2	3	0,050
Switzerland	0,26	9	10	10	
Turkey	1,88	0,8	2,2	1,3	0,042
Australia	0,89				
Japan	2,36	16,9	14,6	17	0,114
Ontario - Canada	0,70		15	15	

→ Companies in the asphalt industry

Country	Production only	Production & Laying	Laying only
Austria	40	35	5
Belgium	11	19	> 40
Croatia	38	38	25
Czech Republic	16	28	> 40
Denmark	0	8	≈ 10
Estonia	1	11	5
Finland	0	10	15
France	0	30	> 1000
Germany	≈ 260	≈ 150	≈ 3000
Great Britain	25	20	
Greece		250	≈ 350
Hungary	2	35	2
Iceland	2	5	14
Ireland	1	28	60
Italy	30	620	> 3500
Latvia	0	13	
Lithuania	0	22	3
Luxembourg		3	
Netherlands	0	19	17
Norway	4	15	35
Poland	3	293	120
Portugal	12	60	30
Romania	12	18	> 36
Slovakia	0	16	0
Slovenia	2	14	5
Spain	25	220	5
Sweden	0	12	75
Switzerland	55	67	> 310
Turkey	8	167	59
Europe	547	2226	> 8761
Canada - Ontario	0	49	147
Japan		782	

→ Number of Production Sites

Country	Stationary Plants		Mobile plants		Number fit for hot recycling	
	2006	2007	2006	2007	2006	2007
Austria	115	110	5	2	5	5
Belgium	40	40	0	0	18	18
Croatia*	65	65	0	0	7	7
Czech Republic	106	108	3	3	70	70
Denmark	43	41	3	3	41	39
Estonia	13	13	13	13	9	6
Finland ***	70	62	46	45	28	38
France **	427	430	79	78	>150	>150
Germany	680	665			≈ 620	620
Great Britain ***	300	300				
Greece ***	240	240	10	≈ 10	0	0
Hungary ***	71	68	11	5	34	30
Iceland ***	6	4	4	5		
Ireland	57	58	17	17	14	15
Italy ***	650	650	10	10	250	220
Latvia	23*	18	4*	1		
Lithuania		39		1		20
Luxembourg	4	4	0	0	2	2
Netherlands	44	43	0		43	42
Norway	90	85	14	14	20	20
Poland*	332	332	26	26	25	25
Portugal		15		110		20
Slovakia*	41	41	0	0	9	9
Slovenia	17	17	2	2	5	5
Spain	385	385	95	102	15	21
Sweden **	87	84	15	15	55	60
Switzerland	136	138	2	1	50	57
Turkey ***	147	206	208	256		
Europe	4189	4261	567	719	1470	1499
Australia ***	114	118	18	20	28	35
Japan	1240	1167	8	7	1061	1064
Ontario - Canada	125	128	35	36	145	145
Venezuela ***	215		38		0	

* Estimated for 2007 - ** One or more plants are operated and owned by the road administration
 *** One or more plants are operated and owned by the road administration and/or municipalities

→ Interesting sites on the internet :

www.eapa.org European Asphalt Pavement Association
www.sdruzeni-silnice.cz Road Contractors Association Prague
www.asfaltindustrien.dk Danish Asphalt Pavement Association
www.vbwASF.nl Dutch Asphalt Pavement Association
www.asfaldiliit.ee Estonian Asphalt Pavement Association
www.infrary.fi Infra Contractors' Association
www.usirf.com French Asphalt Pavement Association
www.asphalt.de German Asphalt Association
www.gestrata.at Gestrata
www.hapa.hu Hungarian Asphalt Pavement Association
www.siteb.it Italian Asphalt Association
www.aef.no Norwegian Asphalt Association
www.pswana.pl Polish Asphalt Pavement Association
www.mischgut-industrie.ch Schweizerische Mischgut-Industrie
www.saaV.sk Slovakian Asphalt Pavement Association
www.zdrufenje-zas.si Slovenian Asphalt Pavement Association
www.asefma.es Spanish Asphalt Association
www.asnud.org.tr Turkish Asphalt Contractors Association
www.qpa.org UK Quarry Products Association
www.galpennergia.com alp Energia Portugal
www.malbik.is Hofdi Asphalt Plant
www.colas.is Colas Iceland
www.vegagerdin.is Icelandic Road Administration

www.pch.public.lu/ L'administration des Ponts et Chaussées Luxembourg
www.lra.lt Lithuanian Road Administration
www.eurobitume.eu European Bitumen Association
www.oecd.org/cem World Economic Organisation
www.piarc.org/en/ World Road Congress
www.irfnet.eu European Union Road Federation
www.fehrl.org European Road Research Laboratories
www.eota.be European Organisation for Technical Approvals
www.eccredi.org The European Council for Construction Research, Development and Innovation
www.cen.eu European Committee for Standardization
www.fiec.org European Contractors Organisation
www.ebrd.com European Bank for Eastern Europe
www.eib.org European Investment Bank
www.hotmix.org US National Asphalt Pavement Association
www.aapa.asn.au Australian Asphalt Pavement Association
www.asphaltinstitute.org US Bitumen Organisation
www.ohmpa.org Ontario Hot Mix Producers Association
www.sabita.org South African Asphalt and Bitumen Association
www.dohkenkyo.or.jp Japan Road Contractors Association
www.roadingnz.org.nz Roading New Zealand
www.inveas.org.ve Venezuelan Asphalt Association

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