



EAPA

EUROPEAN ASPHALT PAVEMENT ASSOCIATION

ASPHALT IN FIGURES

2008



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 2008.

Mr. Alan Mackenzie
President EAPA

Key figures of the European asphalt industry in 2008

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 2003 - 2008 (in million tonnes)

Country	2003	2004	2005	2006	2007	2008
Austria	10,0	10,0	10,0	10,0	9,5	9,5
Belgium	4,8	4,9	5,2	5,0	4,5	4,9
Croatia	3,5	3,0	3,8	3,7	3,7*	4,2
Czech Republic	5,8	5,5	5,6	7,4	7,0	7,3
Denmark	2,9	3,6	3,2	3,4	3,3	3,1
Estonia	0,9	1,1	1,2	1,5	1,5	1,5
Finland	4,9	5,6	6,2	5,5	5,9	6,0
France	38,7	40,5	40,1	41,5	42,3	41,8
Germany	55,0	52,0	57,0	57,0	51,0	51,0
Great Britain	27,8	26,9	27,9	25,7	25,7	25,0
Greece	6,5*	7,0	7,0*	7,8	8,0	8,1
Hungary	3,1	3,0	3,8	4,4	3,3	2,5
Iceland	0,2	0,3	0,3	0,3	0,3	0,4
Ireland	3,3	3,4	3,4	3,5	3,3	2,8
Italy	42,4	46,0	40,1	39,9	35,1	31,6
Latvia	0,6*	0,6*	0,6*	0,6*	0,6*	0,6*
Lithuania					1,7	2,2
Luxembourg				0,6	0,6	0,6*
Netherlands	7,9	7,9	8,6	9,8	10,2	9,3
Norway	4,1	4,5	5,1	5,1	5,9	5,7
Poland	12,0	12,7	15,0	18,0	18,0*	15,0
Portugal	6,0*	9,5	11,1	8,9	9,0	9,0*
Romania	2,8*	2,8*	2,8*	2,8*	3,2	3,3
Slovakia	1,2	1,0	1,8	2,2	2,2*	2,2*
Slovenia	1,6	1,7	1,5	2,2	2,1	2,6
Spain	30,0*	38,9	41,5	43,4	49,9	42,3
Sweden	6,6	6,8	7,2	7,3	7,7	8,7
Switzerland	4,8	4,6	4,7	5,4	5,2	5,3
Turkey	13,2	11,3	16,6	18,9	22,2	26,6
Europe	300,6	315,1	320,9	341,7	342,9	333,1
Australia	6,5	6,9	7,7	7,7	9,0	9,5
Japan	63,7	60,2	57,3	56,6	54,9	49,6
New Zealand	0,8	0,8	0,9	0,9	0,9	0,9
Ontario - Canada	13,0	11,0	13,0	13,0	13,2	13,2*
U.S.A.	500,0	475,0	500,0	500,0	500,0	440,0
Mexico						25,0
Venezuela		6,6	9,5	22,0		8,7

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

Country	Surface course	Binder course	Base course
Austria	15	10	75
Belgium	47		53
Croatia	45	6	49
Czech Republic	59	19	22
Denmark	44	5	51
Estonia	68	29	3
Finland	87		13
France			
Germany	30	19	51
Greece	40	35	25
Hungary	56	38	6
Iceland	95	5	
Ireland	40	20	40
Italy	50	30	20
Lithuania	32	34	34
Netherlands	32	4	60
Norway	80	10	10
Poland	50	28	22
Romania	30	24	46
Slovenia	48	9	43
Spain	51	24	25
Sweden	40	20	40
Switzerland	23	24	53
Turkey	60	30	10
Japan	80	13	7
Ontario - Canada	55	10	35
Mexico	15	65	20
Venezuela	55	35	10

**] Base course + Binder course

→ Surface courses with Asphalt Concrete - EN 13108-1

Country	% of total annual hot and warm mix asphalt production in 2008	In '08 applied area in million m ²	Total area in million m ² incl. 2008
Austria	77,8		
Belgium	33,9		
Croatia	39,3		
Czech Republic	52,2	30,0	
Denmark	25,0	20,9	
Estonia	63,0		
Finland	65,0		
Germany	20,0		
Greece	39,7	27,2	
Hungary	48,6		
Iceland	95,0	3,3	
Ireland	32,8	8,3	
Lithuania	24,0	4,2	
Netherlands	80,0		
Poland	85,0		
Romania	8,4	35,0	
Slovenia	90,0	15,9	
Spain	82,2	195,0	
Sweden	21,0	30,0	
Switzerland	13,0	3,5	
Turkey	59,8	99,8	
Japan		5,0	10
Venezuela	100	50	

→ Surface courses with BTM - EN 13108-2

Country	% of total annual hot and warm mix asphalt production in 2008	In 2008 applied area in million m ²	Total area in million m ² incl. 2008
Austria	2,0		
Belgium	2,0	1,7	
Czech Republic	0,2	0,2	
Hungary	0,3		
Greece	0,3	0,9	
Iceland		0,0	
Ireland	4,4	1,1	
Romania	3,6	20,0	
Spain	11,0	33,5	
Switzerland	3,0	1,2	20,5
Japan		0,3	2,3

→ Surface courses with Soft Asphalt - EN 13108-3

Country	% of total annual hot and warm mix asphalt production in 2008	In 2008 applied area in million m ²	Total area in million m ² incl. 2008
Denmark	10,90	5,70	
Finland	13,00		
Sweden	8,00	12,00	

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

Country	% of total annual hot and warm mix asphalt production in 2008	In 2008 applied area in million m ²	Total area in million m ² incl. 2008
Ireland	2,50	0,63	
Romania	9,00	20,00	
Japan		0,01	1,78

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

Country	% of total annual hot and warm mix asphalt production in 2008	In 2008 applied area in million m ²	Total area in million m ² incl. 2008
Austria	20,0		
Belgium	10,6	6,3	
Croatia	5,4		
Czech Republic	5,4	4,5	
Denmark	7,8	2,8	35,5
Estonia	5,0		
Finland	9,0		
Germany	9,0		
Hungary	6,7		
Iceland	5,0	0,2	
Ireland	0,0	0,0	
Italy			
Lithuania	7,7	1,9	
Netherlands	9,0		
Poland	14,0		
Romania	9,00	25,00	
Slovenia	9,0	2,5	
Spain	4,2	11,8	
Sweden	10,0	15,0	
Switzerland	0,0	0,0	
Turkey	0,4	1,0	4,4
Japan		1,6	11,3

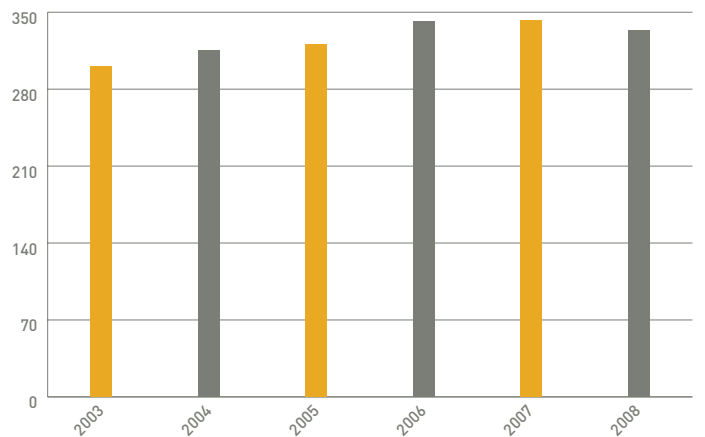
→ Surface courses with Mastic Asphalt - EN13108-6

Country	% of total annual hot and warm mix asphalt production in 2008	In 2008 applied area in million m ²	Total area in million m ² incl. 2008
Austria	0,20		
Belgium	0,30	0,15	
Czech Republic	0,90	0,80	
Denmark	0,02	0,01	
Finland	0,30		
France	0,24		
Germany	1,00		
Hungary	0,20		
Poland	1,00		
Slovenia	0,30	0,04	
Sweden	0,13	0,20	
Switzerland	7,00	1,50	
Japan		0,97	6,1

→ Surface courses with Porous Asphalt - EN13108-7

Country	% of total annual hot and warm mix asphalt production in 2008	In 2008 applied area in million m ²	Total area in million m ² incl. 2008
Austria	2,00	0,76	
Belgium	0,60	0,35	
Czech Republic	0,30	0,20	
Denmark	0,10	0,08	2,1
Ireland	0,30	0,10	
Netherlands	7,00		
Slovenia	0,70	0,05	
Spain	2,60	7,10	
Sweden	0,07	0,10	
Switzerland	9,00	1,70	23,9
Japan	4,30	3,95	53,9

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



→ Cold Bituminous Mixes (annual tonnage)

Country	2006 (tonnes)	2007 (tonnes)	2008 (tonnes)
Austria	60 000	60 000	0
Belgium	34 000	29 000	29 500
Croatia	10 000		0
Czech Republic	13 230	5 500	26 400
Denmark	≈ 0	≈ 0	≈ 0
Estonia	0	0	0
Finland	0	0	0
France	> 1,900,000	> 1,900,000	> 2,000,000
Greece	0	0	0
Hungary	8 500	1 676	1 956
Iceland	6 000	6 000	6 000
Ireland		195 000	140 000
Italy		80 000	
Lithuania		112 000	75 000
Luxembourg	3 000	0	
Netherlands	30 000		
Norway	7 000	9 000	79 000
Poland	55 000		58 000
Portugal		125 000	
Romania		22 000	18 000
Slovakia	116		
Slovenia	≈ 0	≈ 0	0
Spain	318 000	325 000	310 000
Sweden	700 000	150 000	120 000
Switzerland	510 000	460 000	530 000
Turkey	1 166 000	1 288 000	3 546 000
Japan	157 200	184 000	132 000
Mexico			3 000 000
Venezuela			880 000

→ Production of Warm Mix Asphalt in 2008 (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	2008 (million tonnes)
Austria	0,01
Croatia	0,000
Czech Republic	0,010
Estonia	0,000
Finland	0,760
France	> 0,500
Greece	0,000
Hungary	0,000
Iceland	
Lithuania	0,000
Netherlands	0,000
Norway	≈ 0
Spain	0,850
Sweden	0,050
Switzerland	0,630
Mexico	< 0,050
Venezuela	0,000

→ 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	350 000					
Belgium	1 500 000	55				44
Czech Republic	1 500 000	25	0	30	30	10
Denmark	414 000	59	0	0	41	52
Finland	500 000					
France	6 500 000	23		< 2	> 40	< 10
Germany	14 000 000	82			18	60
Greece	0	0	0	0	0	0
Great Britain	4 000 000					
Hungary	27 560	26	0	18	41	5,0
Iceland	30 000				25	6,0
Ireland	80 000	15				1,5
Italy	13 000 000					30
Netherlands	3 500 000	83		0,50		66
Norway	720 000	11	≈ 0	10	63	9
Poland	1 100 000	4				0
Romania	18 000	60	10	10	5	15,0
Slovenia	25 600	51		49		
Spain	1 150 000	48	14	18	30	8,0
Sweden	1 000 000	65	20	10	5	50
Switzerland	1 100 000	50		50		19,0
Turkey	1 168 000	2			98	8,0
Japan						73,3
U.S.A.	100 000 000	95 ****				
Venezuela	345 000			100		

**** 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 2008	% Modified bitumen (of total) in 2006	% Modified bitumen (of total) in 2007	% Modified bitumen (of total) in 2008	Emulsions in 2008
Austria	0,48	50	20	20	
Belgium	0,21	20	19	24	
Czech Republic	0,50	19	20	20	0,040
Denmark	0,16	5	5	5	0,020
Estonia	0,10	0	0	0	0,020
Finland	0,30	1	0,5	0	0,003
France	3,38	< 10	< 10	< 10	0,95
Germany	2,15	23	22,5	22,5	
Great Britain	1,46	7,0	7,0	7	0,12
Greece	0,30	5,0	6,0	6	0,010
Hungary	0,14	32,3	25	38,7	0,001
Iceland	0,04				0,005
Ireland	0,19	10,2	10,8	11,2	0,018
Italy	1,60	11	13,6	15,5	0,085
Lithuania	0,14		10	12	0,014
Netherlands		3	7		
Norway	3,20	≈ 0	≈ 0	≈ 0	0,008
Poland	1,28			21	0,980
Romania	0,19		65	70	0,110
Slovenia	0,11	12	15	22	0,003
Spain	1,89	12,9	13,9	12,4	0,110
Sweden	0,50	2	3	4	0,040
Switzerland	0,27	10	10	11	
Turkey	2,02	2,2	1,3	1,4	0,045
Australia	0,95				
Japan	2,01	14,6	17	18,6	0,095
New Zealand	0,17				
Mexico	2,10			11,9	0,550
Venezuela	0,43			0	0,2

→ Companies in the asphalt industry

Country	Production only	Production & Laying	Laying only
Austria		55	
Belgium	11	19	>40
Croatia	1	34	7
Czech Republic	18	26	>40
Denmark	0	8	≈ 10
Estonia	1	11	4
Finland	0	10	15
France	0	30	1547
Germany	≈ 260	≈ 150	≈ 3000
Great Britain	25	20	
Greece	-250	-250	≈ 300
Hungary	2	27	2
Iceland		6	14
Ireland	1	28	60
Italy	30	630	>3500
Latvia	0	13	
Lithuania	0	22	3
Luxembourg		3	
Netherlands	0	19	17
Norway	4	13	35
Poland	4	250	130
Portugal	12	60	30
Romania	10	22	>30
Slovakia	0	16	0
Slovenia	16	14	5
Spain	18	218	5
Sweden	0	9	75
Switzerland	57	69	>320
Turkey	8	182	57
Europe	728,0	2214,0	> 9246
Australia		20	
Mexico	→600		
Japan		782	
Venezuela	10	95	15

→ Number of Production Sites

Country	Stationary Plants		Mobile plants		Number fit for hot recycling	
	2007	2008	2007	2008	2007	2008
Austria	110	116	2	1	5	40
Belgium	40	40	0	0	18	23
Croatia	52*	52	2*	2	4*	4
Czech Republic	108	110	3	3	70	70
Denmark	41	42	3	3	39	40
Estonia	13	10	13	15	6	6
Finland ***	62	64	45	25	38	44
France **	430	434	78	79	>150	>150
Germany	665	665			620	620
Great Britain ***	300	300				
Greece ***	-240	-240	≈ 10	≈ 10		0
Hungary	68	97	5	11	30	42
Iceland ***	4	4	5	5	1	1
Ireland	58	58	17	15	15	15
Italy ***	650	630	10	10	220	280
Latvia	18	18*	1	1*		
Lithuania	39	39	1	1	20	21
Luxembourg	4	4*	0	0*	2	2*
Netherlands	43	45		0	42	45
Norway	85	82	14	14	20	20
Poland*	332	280	26	20	25	2
Portugal	15	15*	110	110*	20	20*
Slovakia*	41	41*	0	0*	9	9*
Slovenia	17	19		2	5	
Spain	385	379	102	104	21	29
Sweden	84	83	15	13	60	65
Switzerland	138	139	1	1	57	60
Turkey ***	206	214	256	301		5
Europe	4248	4220	719	746	>1497	1604
Australia ***	118	135	20	35	35	40
Japan	1167	1205	7	5	1064	1018
New Zealand		39			5	Some
Ontario - Canada	128		36		145	
Venezuela ***		215		85		5

** 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.asfaltindustri.dk Danish Asphalt Pavement Association
www.vbwasfalt.nl Dutch Asphalt Pavement Association
www.asfaldiliit.ee Estonian Asphalt Pavement Association
www.infrary.fi Finnish Asphalt 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.fav.net Norwegian Asphalt and Road Contracting Association
www.pswana.pl Polish Asphalt Pavement Association
www.apdp.ro Professional Association of Roads and Bridges of Romania
www.mischgut-industrie.ch Schweizerische Mischgut-Industrie
www.saaav.sk Slovakian Asphalt Pavement Association
www.zdruzenje-zas.si Slovenian Asphalt Pavement Association
www.asefma.es Spanish Asphalt Association
www.asmud.org.tr Turkish Asphalt Contractors Association
www.mineralsproducts.org UK Minerals Products Association
www.amaac.org.mx Asociacion Mexicana del Asfalto,A.C
www.galpenergia.com Galp 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
www.amaac.org.mx Asociacion Mexicana del Asfalto,A.C

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