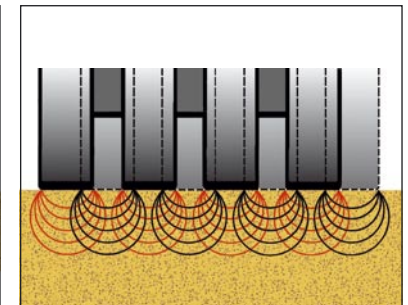
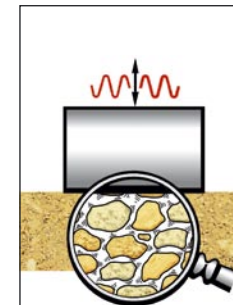
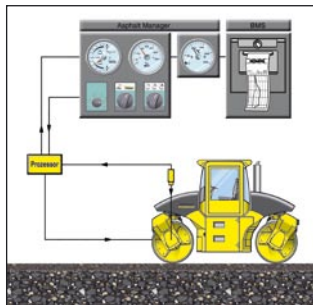


BOMAG

Soil and Asphalt compaction

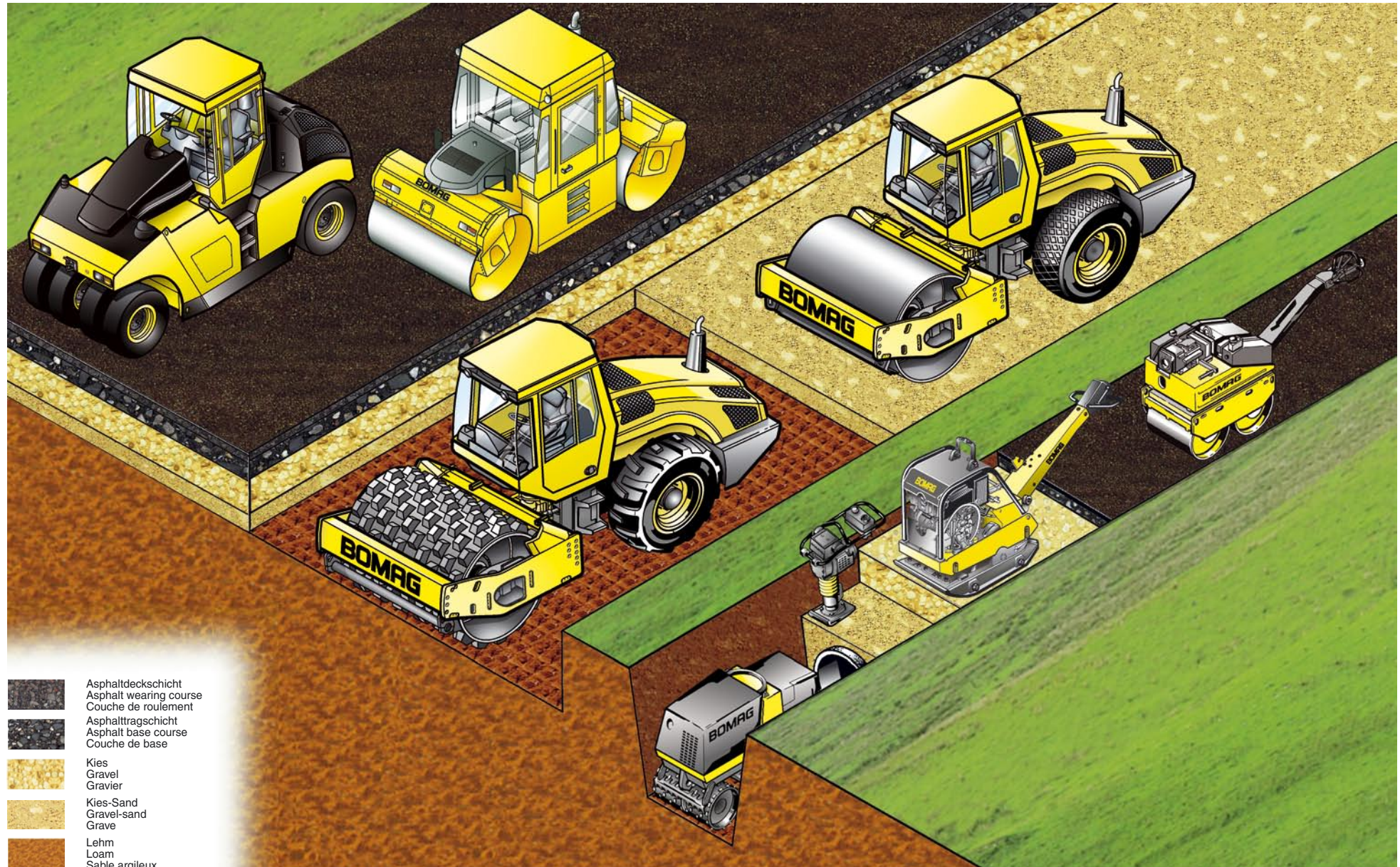


BOMAG

Soil and Asphalt
compaction equipment

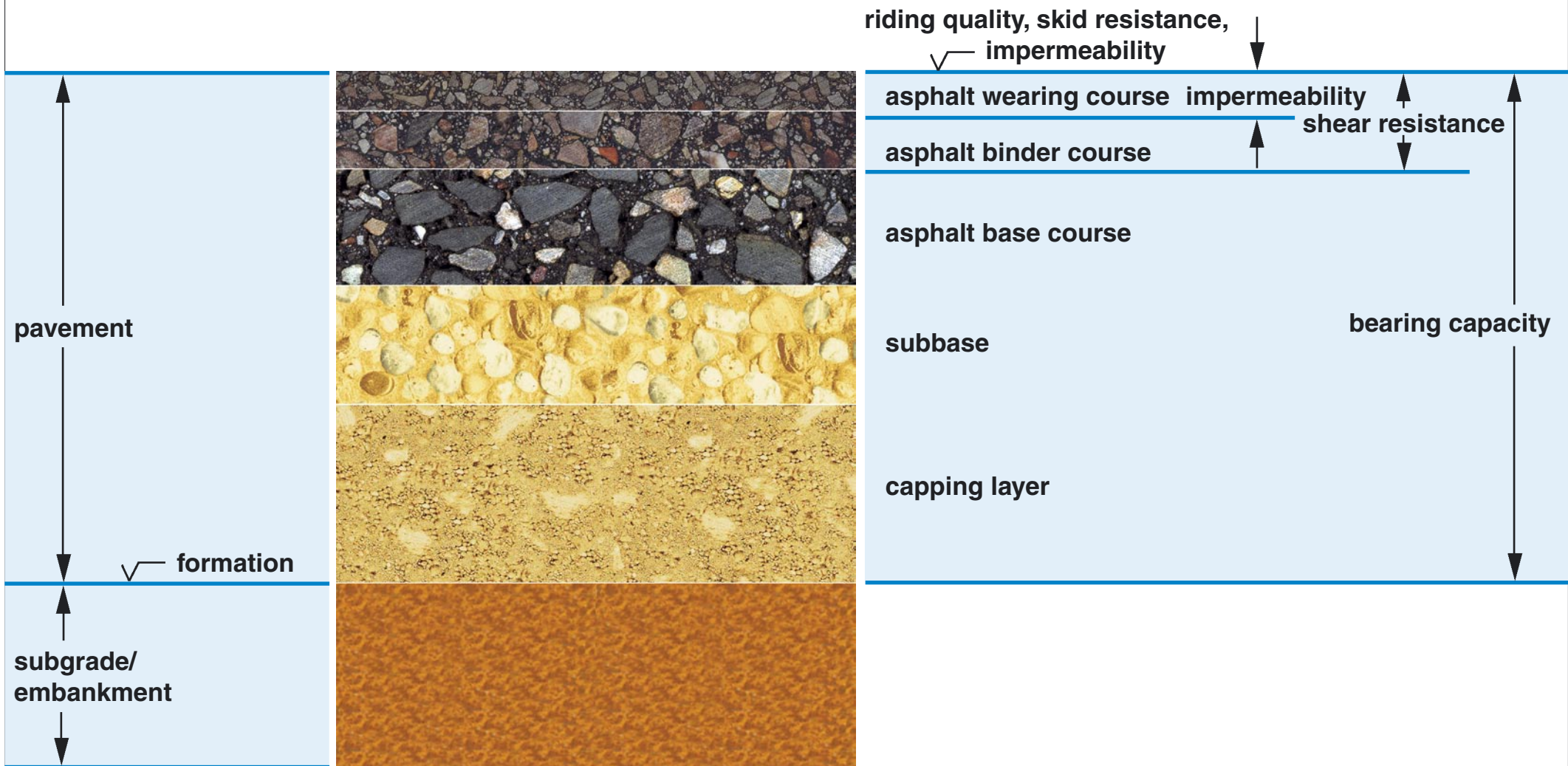
Verdichtungsgeräte für den Erd- und Asphaltbau

Engin de compactage des sols
et des mélanges bitumineux



BOMAG

Structure and properties of a flexible pavement



gravel



gravel - sand

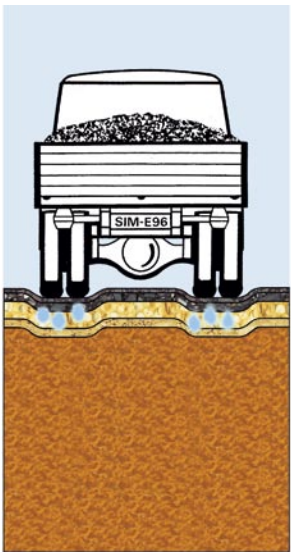


loam

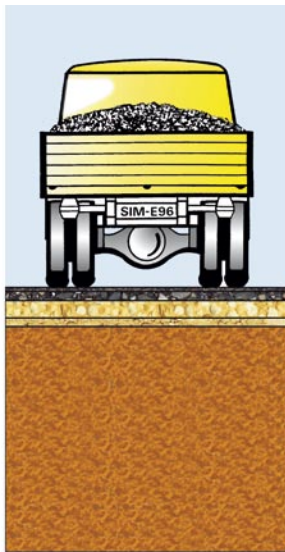
BOMAG

Objectives of compaction

Poor compaction

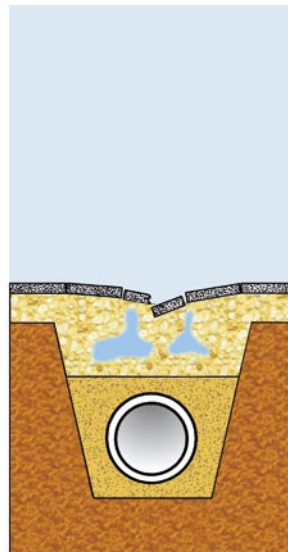


Good compaction

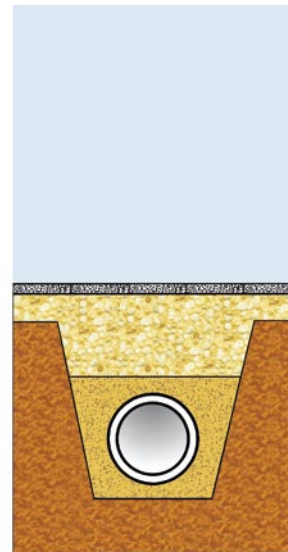


Increased bearing capacity
Increased durability

Poor compaction

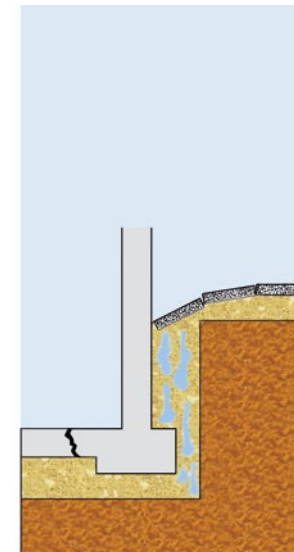


Good compaction

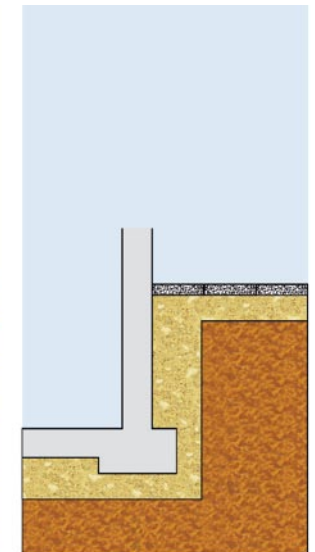


Higher resistance to deformation
Higher resistance to frost damage

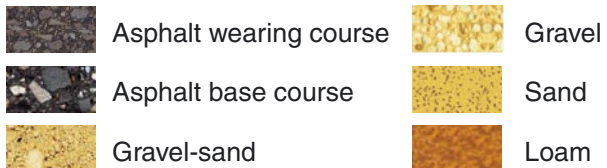
Poor compaction



Good compaction

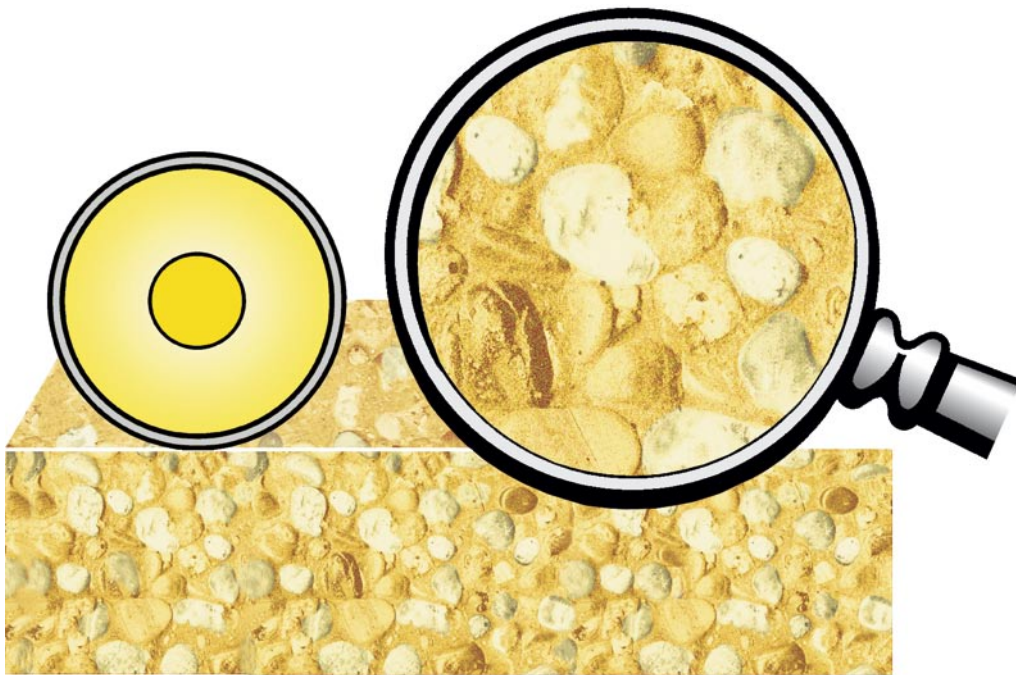


Increased stability
Decreased permeability

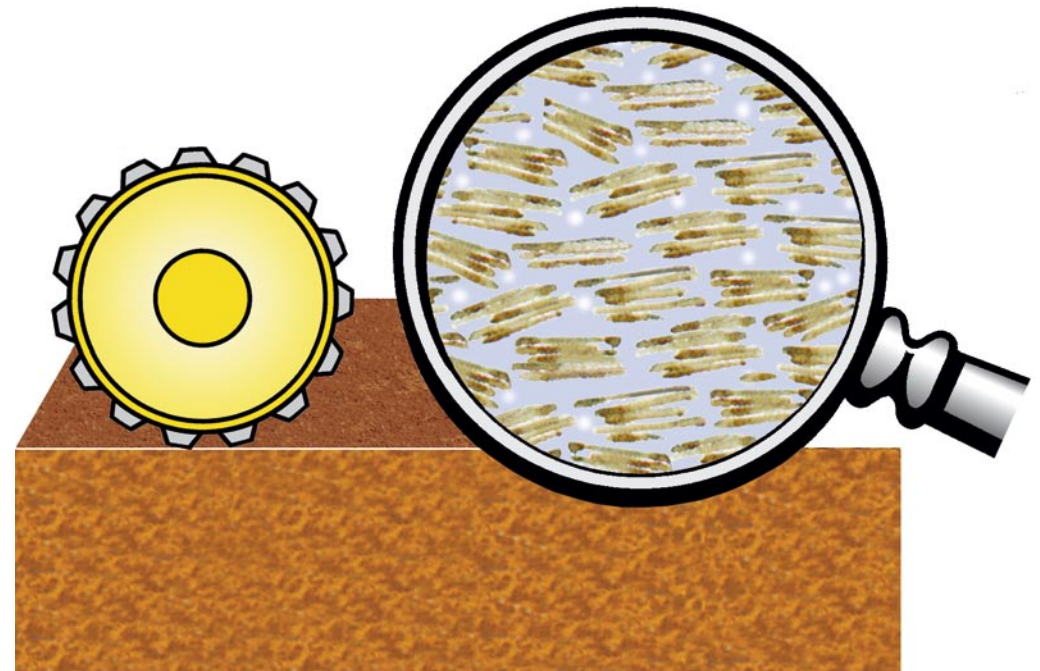


BOMAG

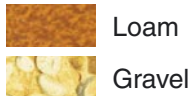
Soil compaction Soil type definitions



**coarse aggregate
granular
non-cohesive**



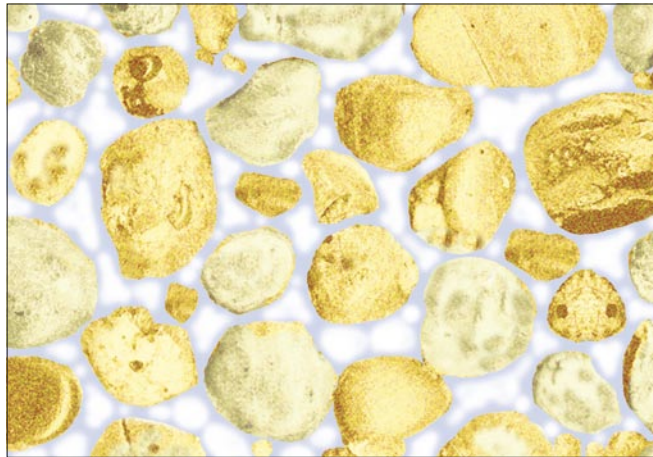
**fine aggregate
non-granular
cohesive**



BOMAG

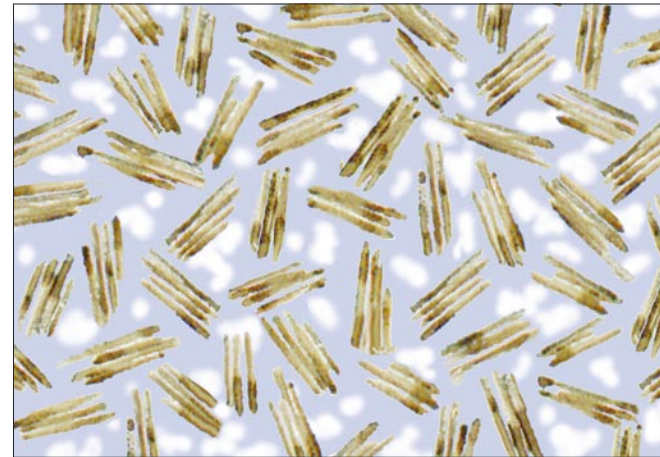
Soil compaction

Granular

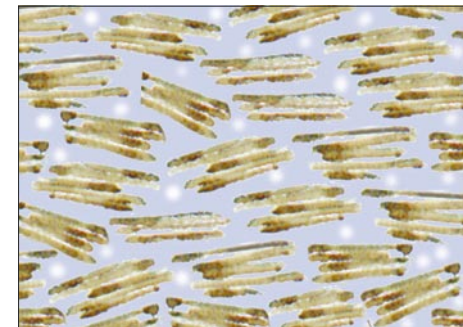
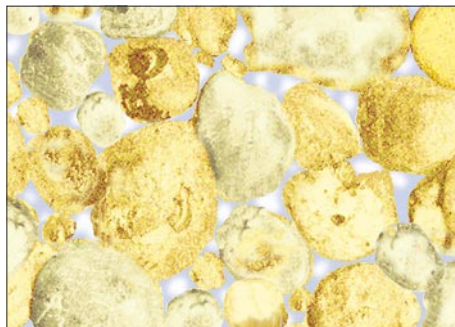


before compaction

Cohesive

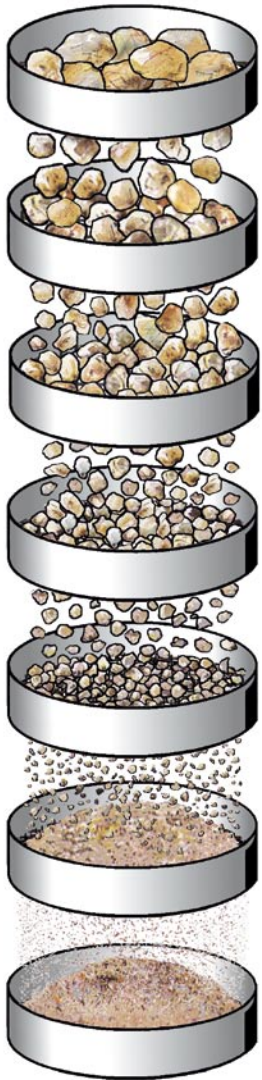


after compaction

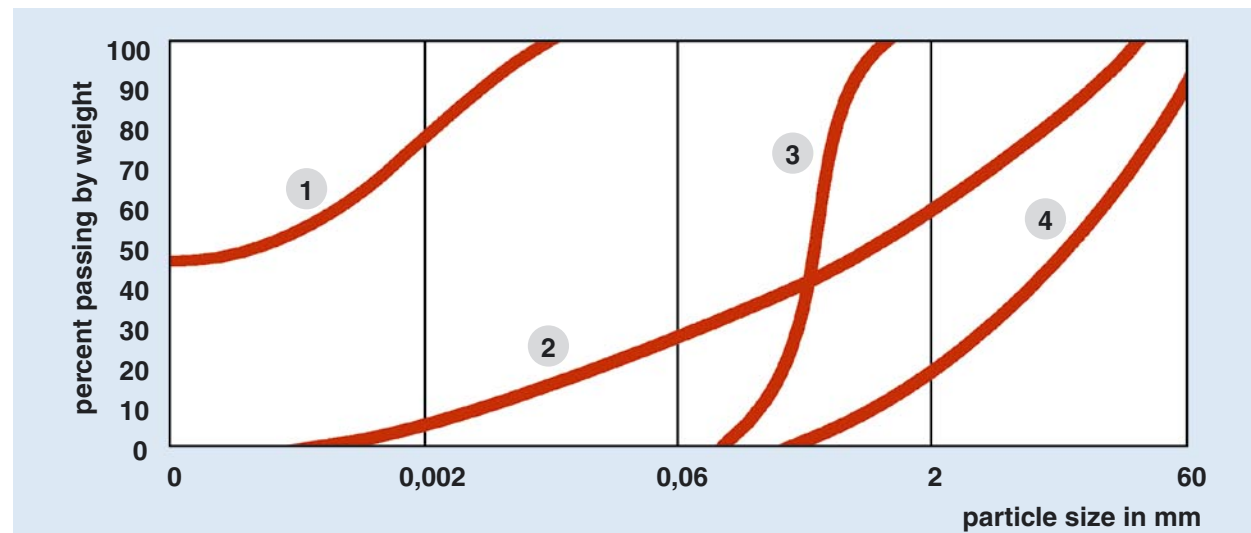
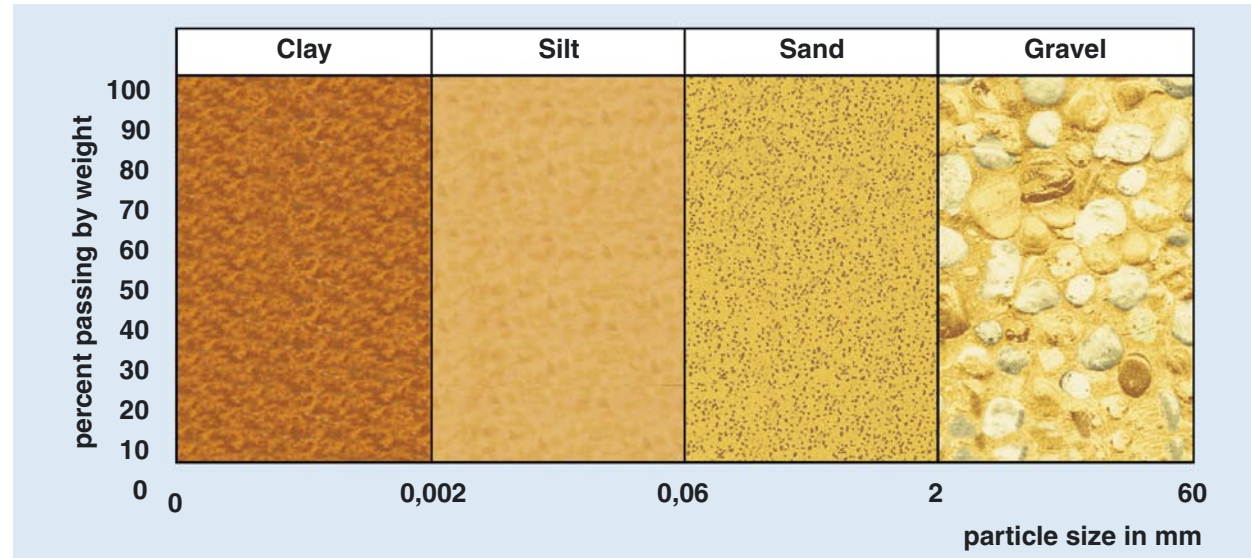


BOMAG

Soil compaction Sieving and particle size distribution

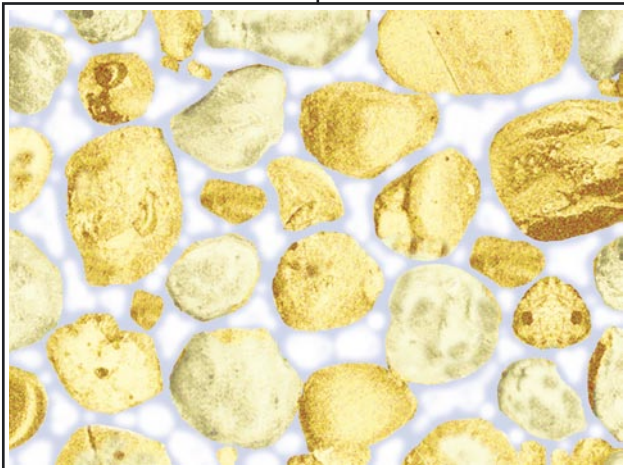
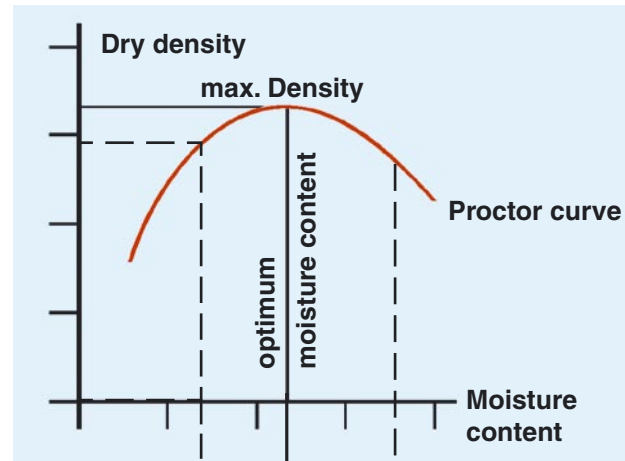


- 1 silty clay
- 2 Gravel - silt
- 3 uniform sand
- 4 Gravel - sand

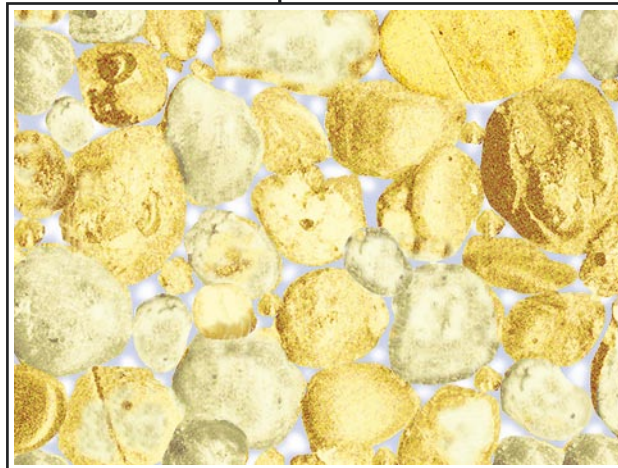


BOMAG

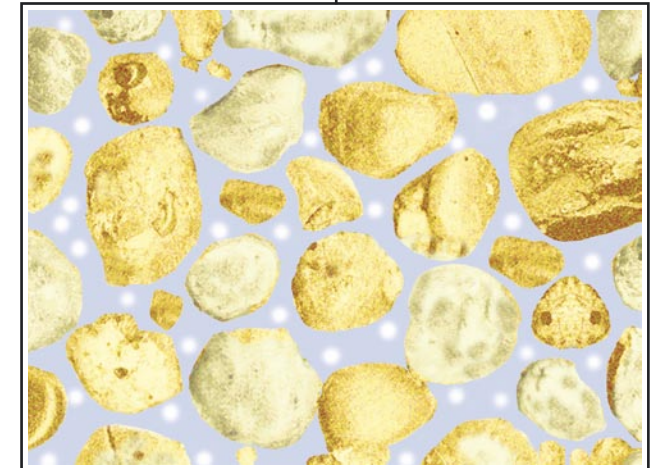
Soil compaction Influence of water content on compactability



- low moisture content**
- high internal friction
 - low density



- optimum moisture content**
- best compactability
 - max. density

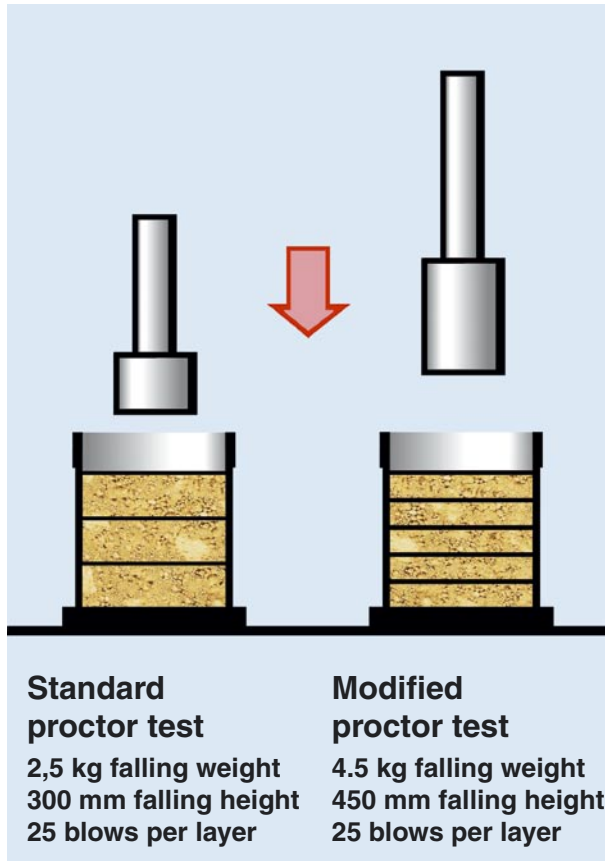


- high moisture content**
- high water pressure
 - low density

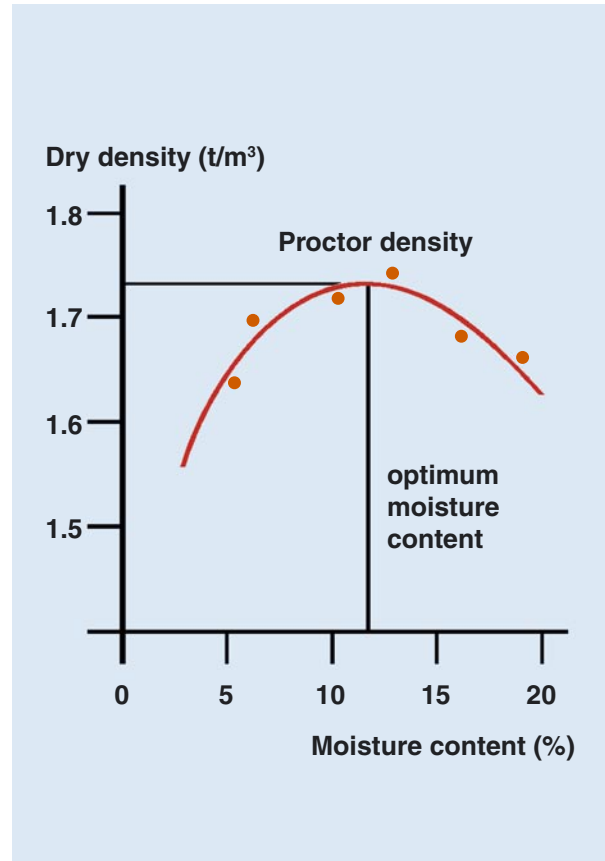
BOMAG

Soil compaction

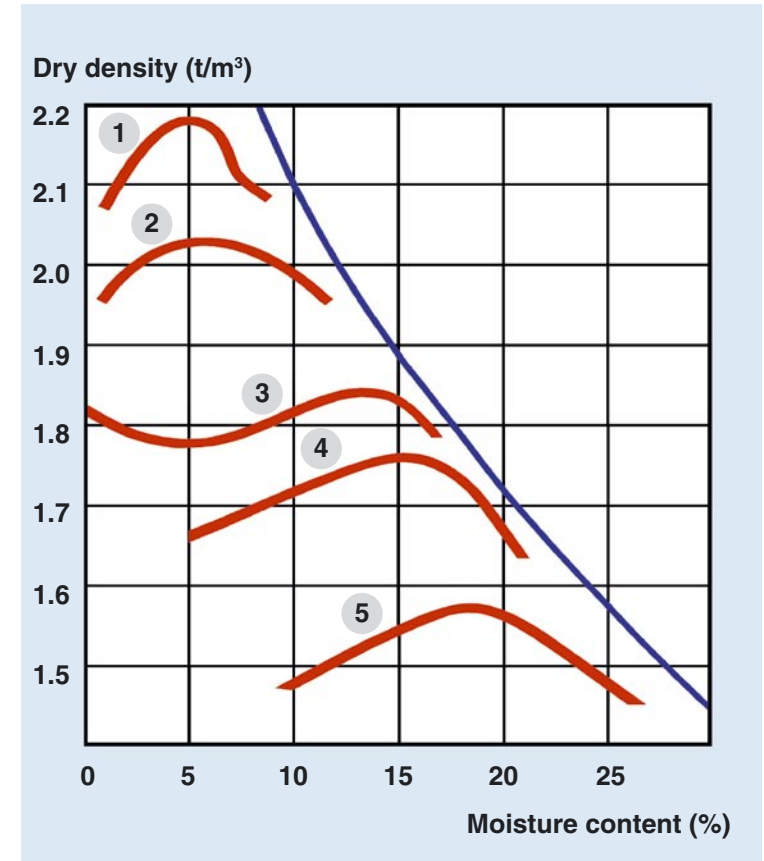
Proctor curve



Proctor test



Proctor curve



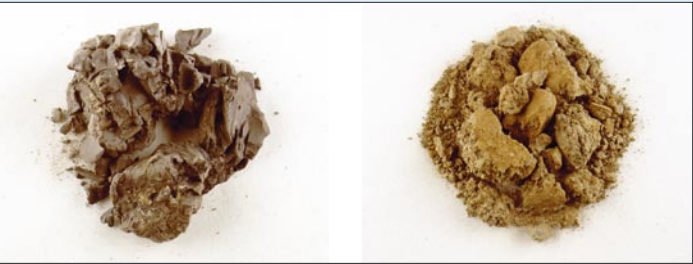
Proctor curves of different soil types

- 1 sandy gravel
- 2 Gravel - sand
- 3 uniform sand
- 4 sandy silt
- 5 heavy clay



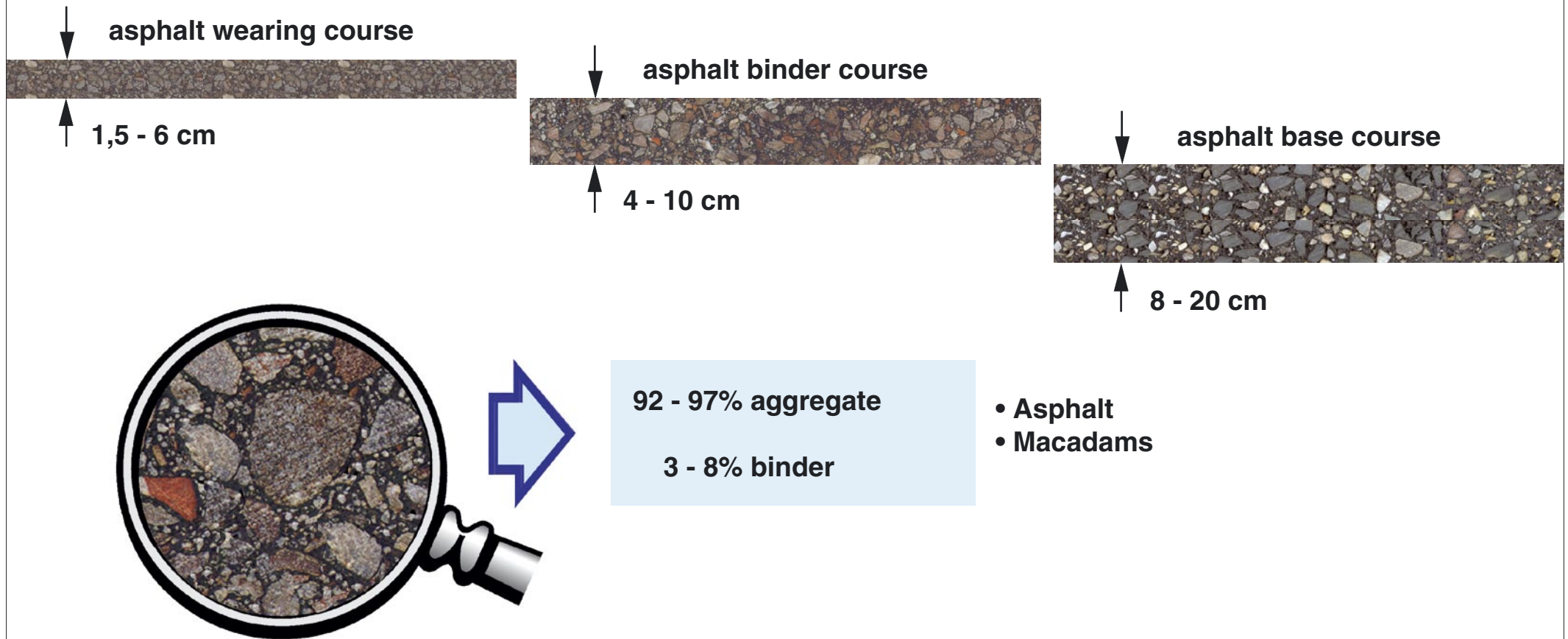
BOMAG

Soil compaction

Fine aggregate		Coarse aggregate		Rockfill	
Clay	Silt	Sand	Gravel	Cobbles	Boulders
Application primarily for • dam construction • embankments for road, rail track and airport construction • trenches and backfills • sanitary landfill construction		Application primarily for • embankments subbases and bases for road, rail track and airport construction • foundations for buildings • trenches and backfills		Application primarily for • dam construction • embankments for road, rail track and airport construction • foundations for buildings	
Clay < 0,002mm Silt 0,002-0,06mm		Sand 0,06 - 2 mm Gravel 2 - 60 mm		Cobbles > 60 mm Boulders > 100 mm	
					
Compactability • difficult to compact due to cohesion • compaction effect depends strongly on water content • material needs high compaction energy		Compactability • depends on grading • too much compaction may be detrimental		Compactability • layer thickness should be three times thicker than max. particle size • material needs high compaction energy	
Compaction equipment primarily • heavy and medium size single drum rollers (smooth and padfoot drum) • trench compactors and heavy plates		Compaction equipment • vibratory tandem rollers and single drum rollers (smooth drum) • heavy and medium size plates		Compaction equipment primarily • heavy single drum rollers • heavy plates	

BOMAG

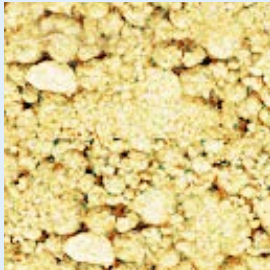
Asphalt compaction



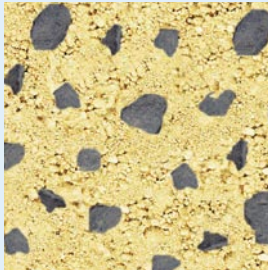
BOMAG

Asphalt compaction

mix design



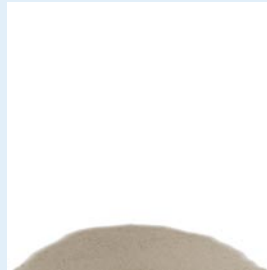
gravel



low stone content



small max. stone size



low filler content



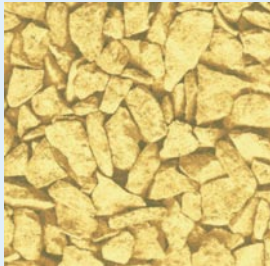
high penetration bitumen

properties

- low stability
- sensitive to shoving
- sensitive to rippling
- easy to compact

application

- lightly trafficked roads
- secondary roads
- local roads
- cycle ways
- parking areas



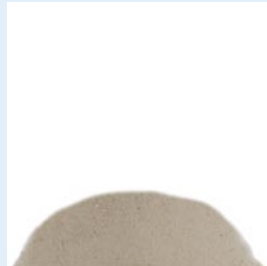
crushed aggregate



high stone content



high max. stone size



high filler content



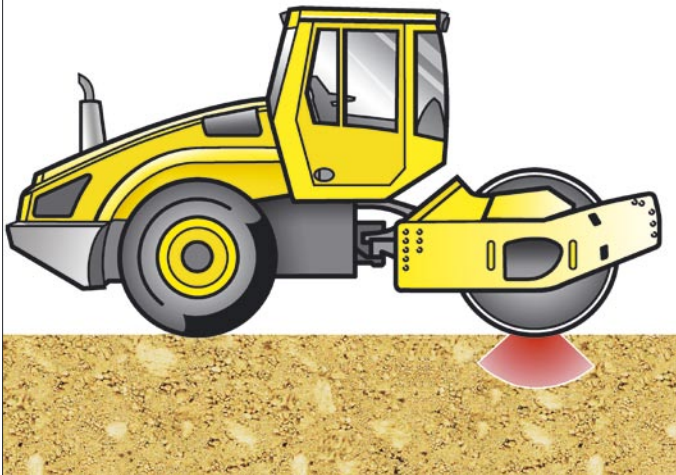
low penetration bitumen

- high stability
- high internal friction
- difficult to compact

- heavily trafficked roads
- motorways
- national roads
- airports

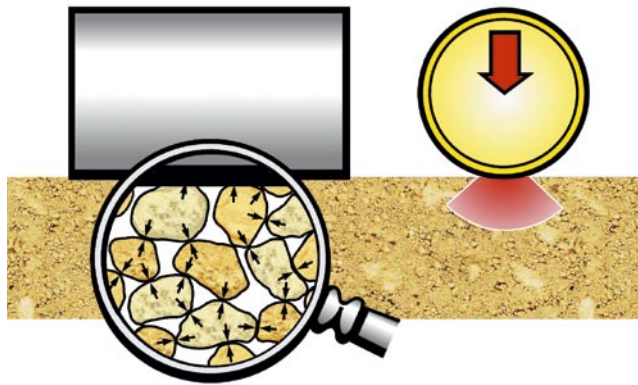
BOMAG

Static compaction single drum and tandem rollers



Applications

surface compaction
wet cohesive soils in thin
layer applications

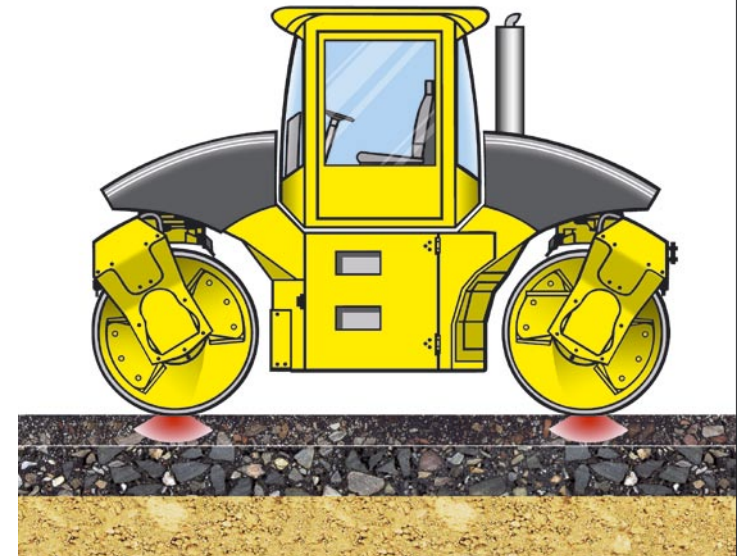


Compaction principle

only static pressure
limited depth effect

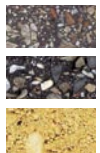
Key parameter

static linear load



Applications

- finish rolling
- precompaction of tender mixes
- thin layers on stiff bases



Asphalt wearing course

Asphalt base course

Gravel-sand

BOMAG

Static compaction pneumatic tyred rollers



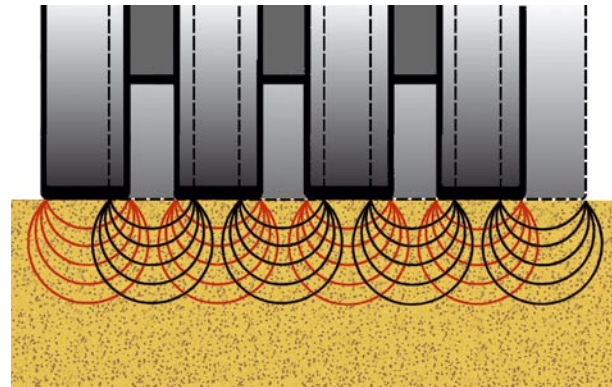
Applications

- surface dressing
- precompaction of tender asphalt mixes
- finish rolling on asphalt
- thin granular soil layers
- surface finishing on cohesive soil layers



Asphalt binder course

Sand

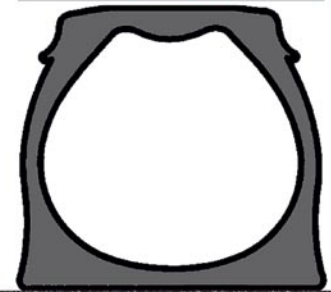
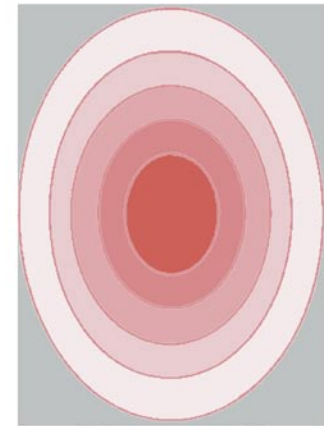


Compaction principle

ground pressure and kneading effect

Key parameters

- wheel load
- tyre pressure

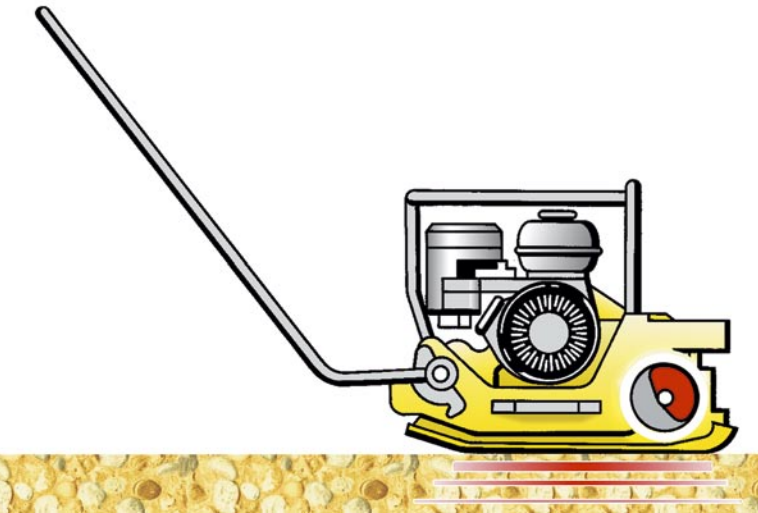


contact pressure
range 0,20 - 0,80 MPa

BOMAG

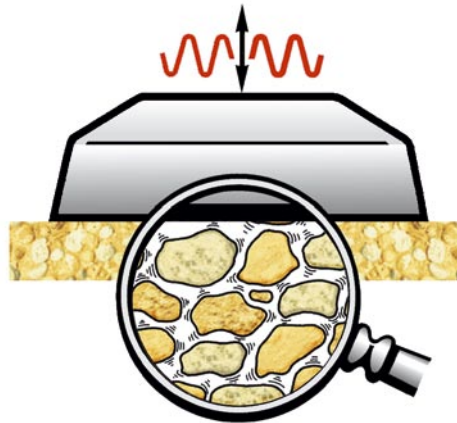
Vibratory compaction plate compactors

non-reversible vibratory plates



Applications

- thin layers
- granular materials
- bituminous materials
- block paving



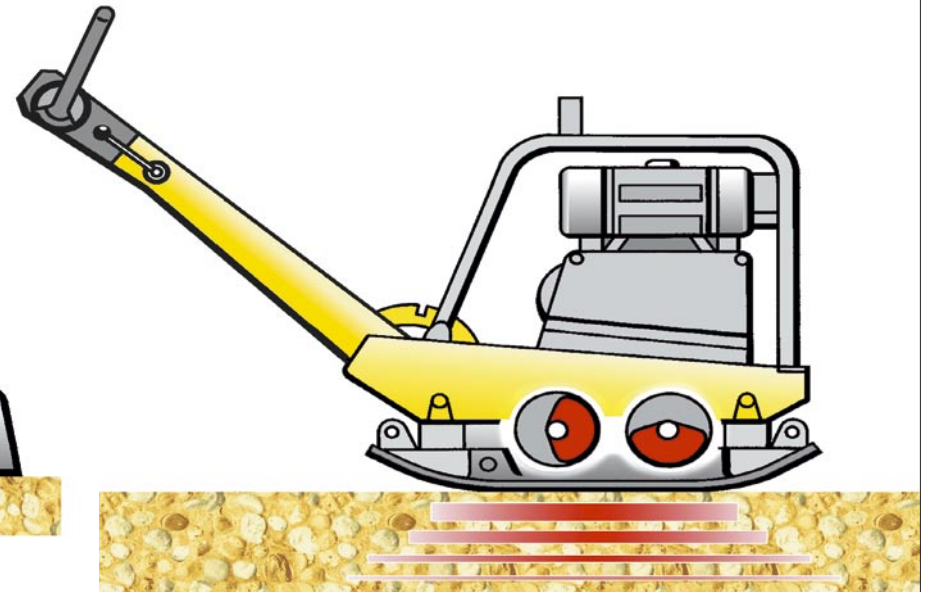
Compaction principle

dynamic energy

Key parameters

- weight
- amplitude
- frequency

reversible vibratory plates



Applications

- thin and thick layers
- granular materials
- mixed soils
- paving blocks



Gravel

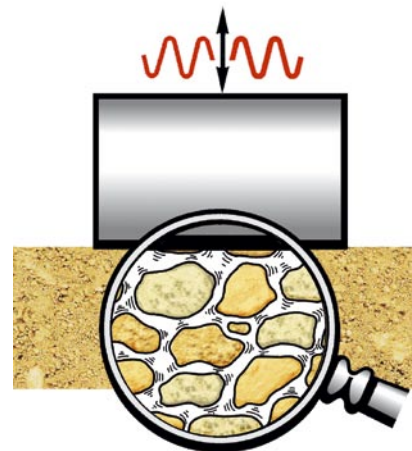
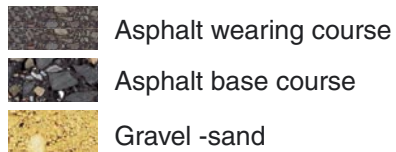
BOMAG

Vibratory compaction tandem rollers with circular exciter system



Application

- asphalt surfacing
- asphalt bases
- overlay compaction on granular bases

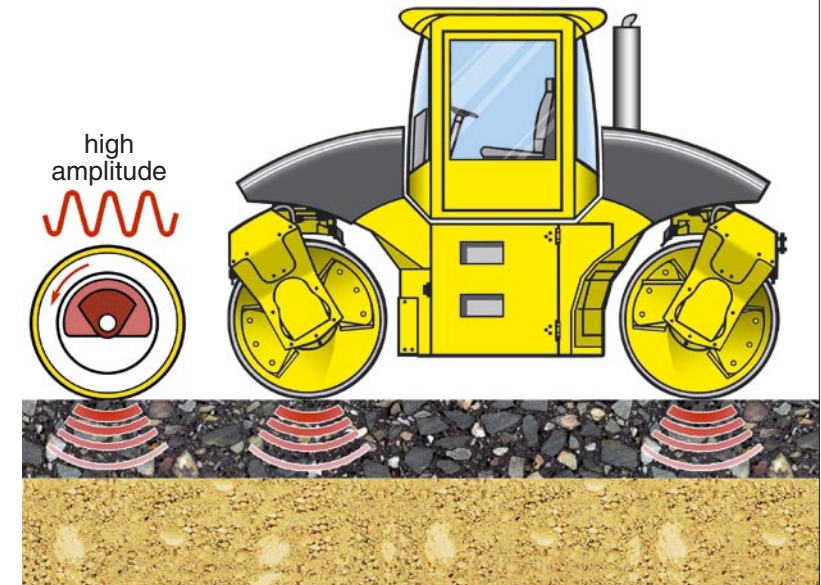


Compaction principle

static pressure
and dynamic energy

key parameters

- static linear load
- vibrating mass
- amplitude
- frequency

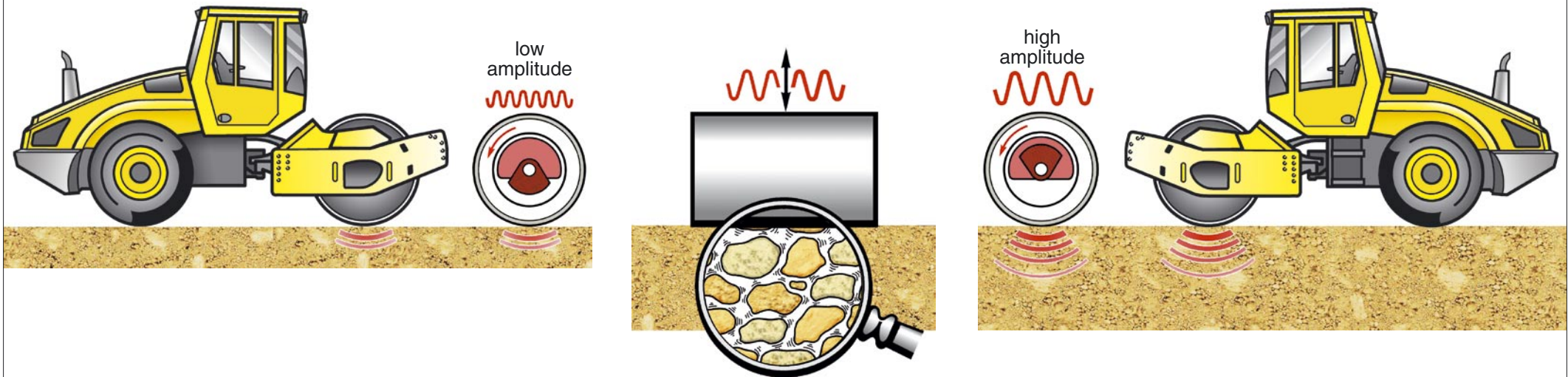


Application

- asphalt bases
- granular bases
- cement bound bases
- subbases

BOMAG

Vibratory compaction single drum rollers with circular exciter system



Application

- thin layers
- granular materials
- granular bases
- overlay compaction on thick granular layers

Compaction principle

static pressure and dynamic energy

Key parameters

- static linear load
- vibrating mass
- amplitude
- frequency

Application

- thick layers
- granular and cohesive materials
- cement bound materials
- subbases
- embankments
- dams



Gravel-sand

BOMAG

Vibratory compaction Asphalt Manager with directed vibrator system

Direction of vibration adjustable and automatically regulating



low dynamic energy
due to horizontally
directed vibrations

Compaction effect
Deadweight and dynamic energy,
the compaction effect is automatically
adapted to compactibility of material,
layer thickness and subbase.

high dynamic energy
due to vertically
directed vibrations

Applications: all soil types,
granular bases and subbases



Gravel-sand

BOMAG

Vibratory compaction Asphalt Manager with directed vibrator system

Direction of vibration adjustable and automatically regulating



low dynamic energy
due to horizontally
directed vibrations

Compaction effect
Deadweight and dynamic energy,
the compaction effect is automatically
adapted to compactibility of material,
layer thickness and subbase.

high dynamic energy
due to vertically
directed vibrations

Applications: all soil types,
granular bases and subbases



Gravel-sand

BOMAG

VARIOCONTROL single drum rollers with directed vibrator system adjustable and automatically regulating



low dynamic energy
due to horizontally
directed vibrations

Compaction effect
Deadweight and dynamic energy,
the compaction effect is automatically
adapted to compactibility of material,
layer thickness and subbase.

high dynamic energy
due to vertically
directed vibrations

Applications: all soil types,
granular bases and subbases.



Gravel-sand

BOMAG

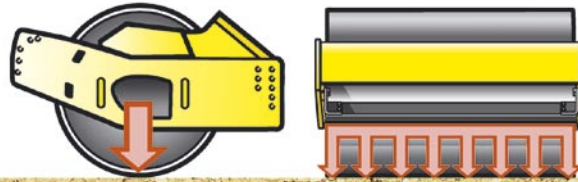
Vibratory compaction key parameters of vibratory rollers

operating weight



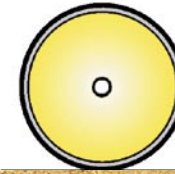
2,5 - 26 t

static linear load



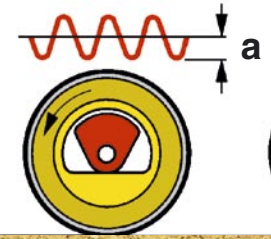
10 - 80 kg/cm

vibrating
mass



0,5 - 6,5 t

amplitude

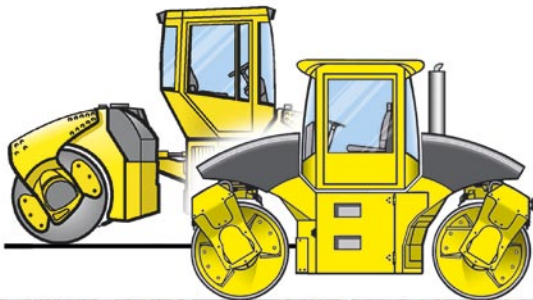


0,7 - 2,5 mm

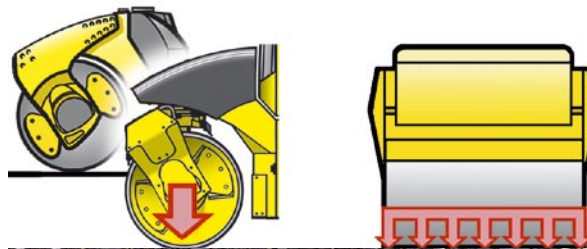
frequency



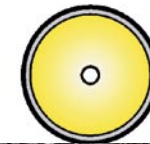
28 - 40 Hz



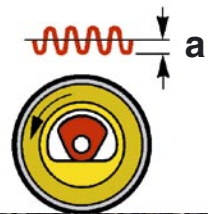
2 - 13 t



10 - 30 kg/cm



0,5 - 2,5 t



0,2 - 0,9 mm



30 - 60 Hz



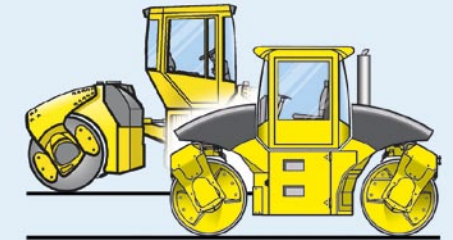
gravel-sand



asphalt course wearing

BOMAG

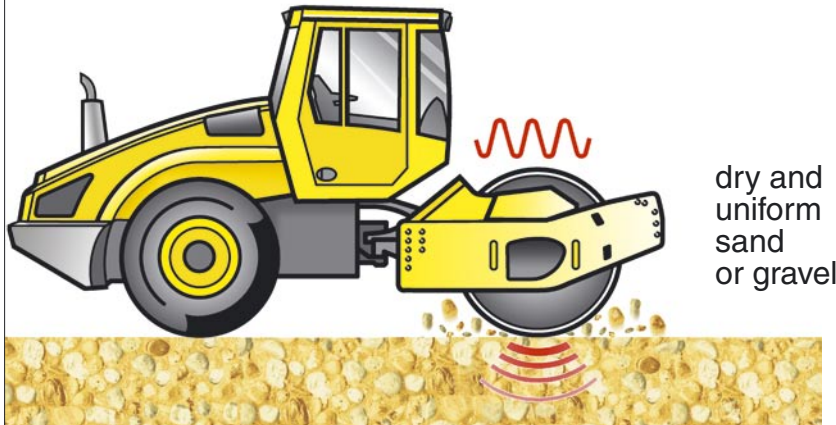
Application guidelines - vibratory rollers

application		roller	static linear pressure kg/cm	amplitude mm	frequency Hz	rolling speed km/h
earthworks dams	 rocks		≥ 30	$\geq 1,5$	28 - 35	1 - 2,5
	 loam					
granular bases subbases	 gravel		≥ 10	$\geq 0,4$	28 - 60	2 - 4
	 gravel-sand					
	 sand					
asphalt base course			10 - 30	0,35 - 0,9	30 - 60	2 - 4
asphalt wearing course				$\leq 0,5$	40 - 60	2 - 6

BOMAG

Application guidelines Soil compaction

compaction problems



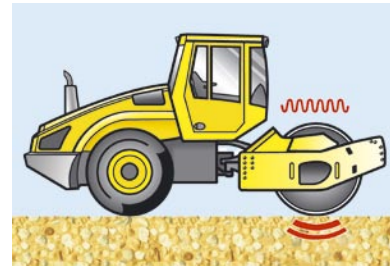
- loosening effects
- poor compaction results

excessive moisture content



- water coming to surface
- soft soil consistency
- poor compaction results

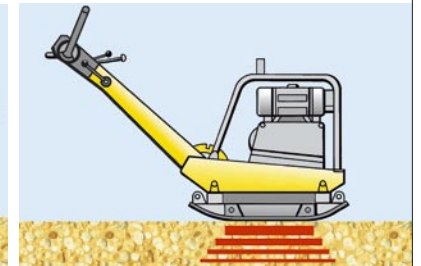
recommendations



heavy roller
low amplitude

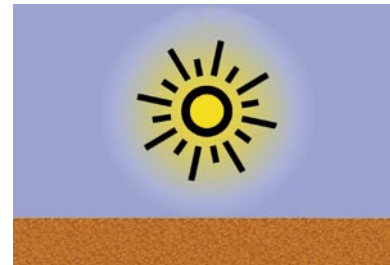


medium roller
high or low amplitude

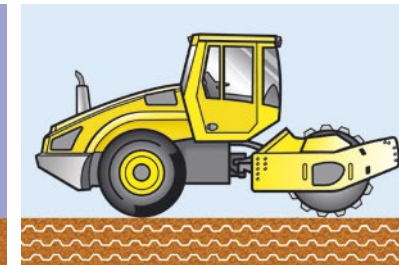


medium - heavy
plate compactors

reduced moisture content below optimum by



drying . . .



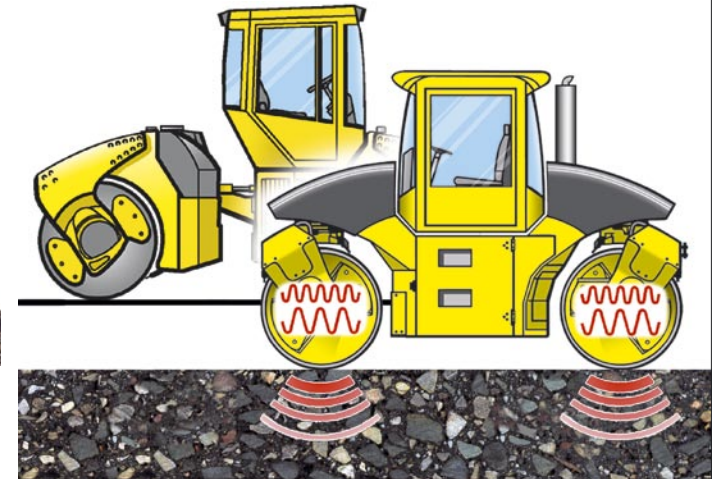
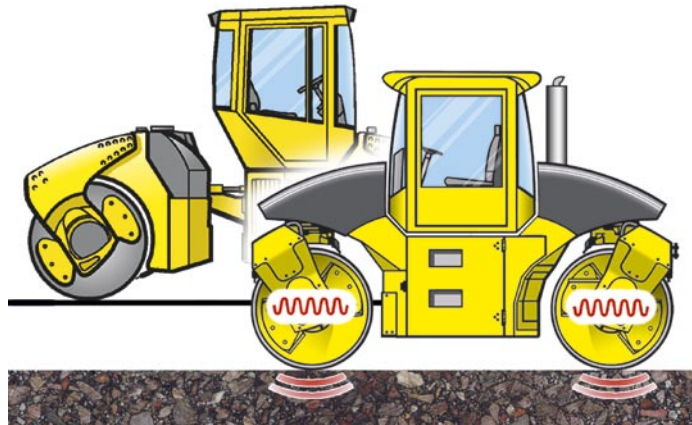
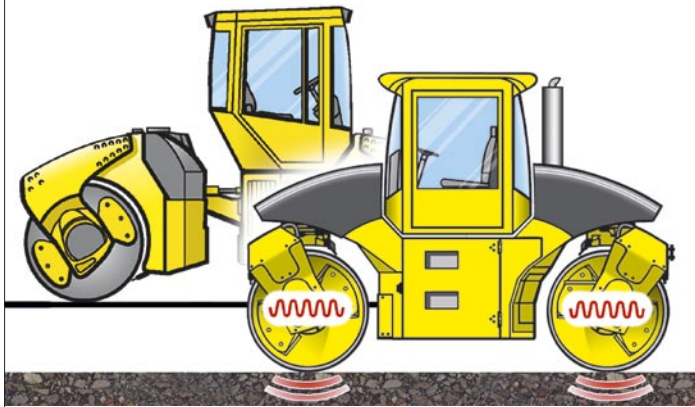
pad foot roller and
thin layer application . . .



stabilization

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Application guidelines Asphalt compaction



light - heavy duty vibratory rollers
depending on output required

- low amplitude

medium - heavy duty vibratory rollers
• high and low amplitude



Asphalt wearing course



Asphalt binder course



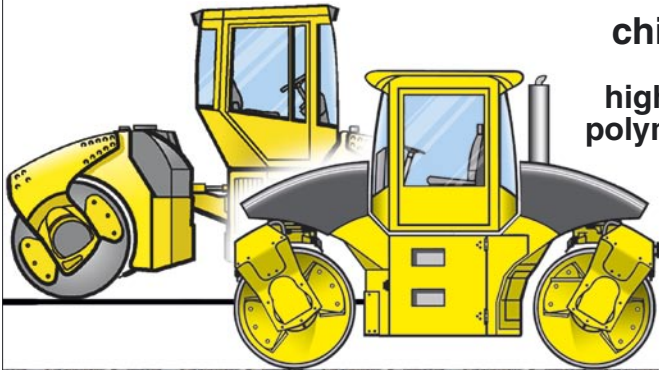
Asphalt base course

BOMAG

Application guidelines

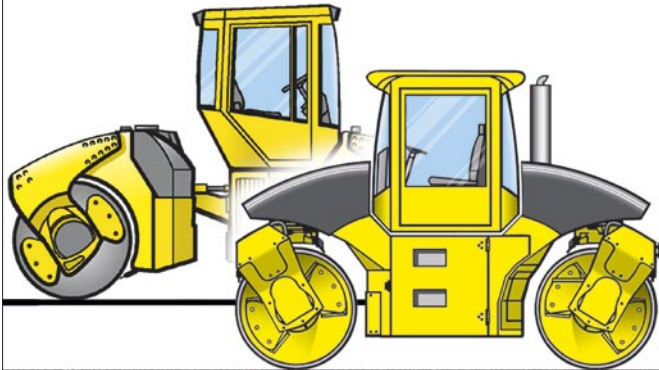
Asphalt compaction / special surface layers

chip mastix asphalt
harsh mix
high chip stone content
polymer modified bitumen



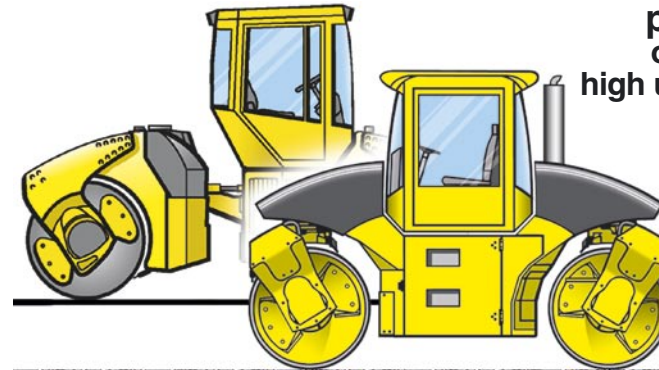
- heavy duty tandem vibratory rollers
- Variomatic rollers

thin layer asphalt
tender - harsh mix



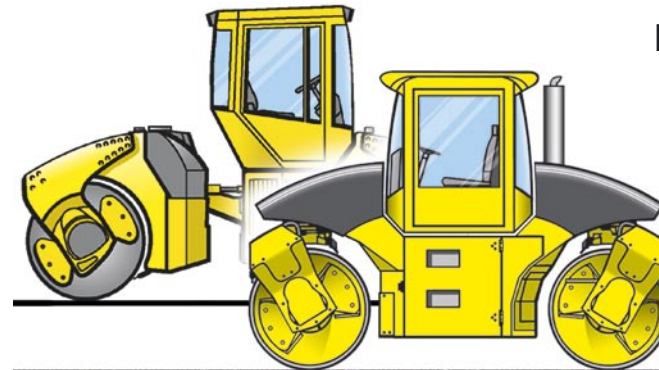
- medium duty tandem vibratory rollers
minimum passes with vibration
- rollers with Asphalt Manager
- heavy duty static rollers

porous asphalt
open graded mix
high uniform stone content



- medium duty tandem vibratory rollers
minimum passes with vibration
- Variomatic rollers
- heavy duty static rollers

Hot rolled Asphalt
high sand content



- medium - heavy duty tandem vibratory rollers
- Variomatic rollers

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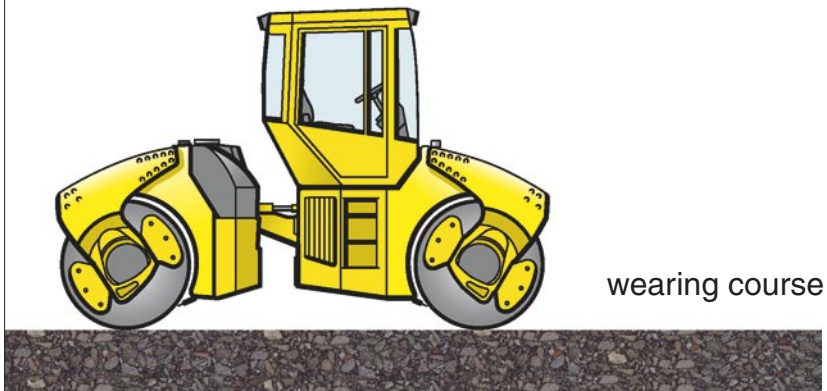
Application guidelines Asphalt compaction

compaction problems on unstable mixes



- shoving
- rippling
- poor finish

on stiff mixes



- poor compaction results

recommendations



after cooling use
static compaction
followed by
vibratory compaction



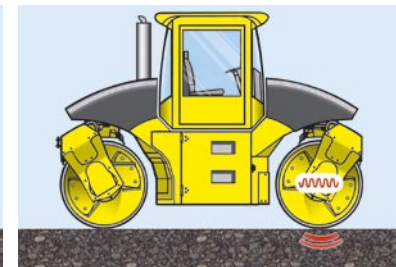
light - medium duty
vibratory rollers
low amplitude



Asphalt Manager



vibratory compaction
for high mix temperature



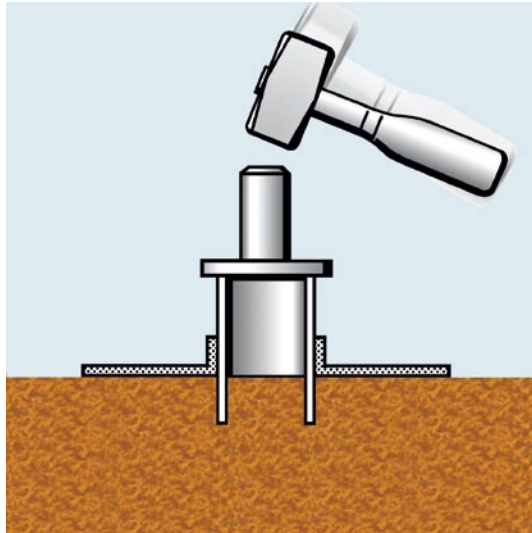
heavy duty
vibratory roller



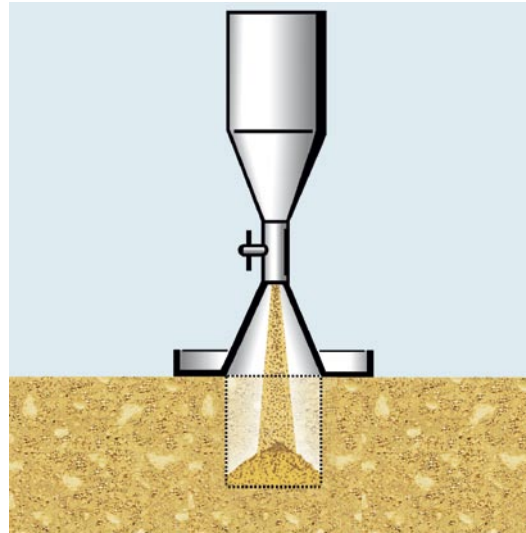
Asphalt Manager

BOMAG

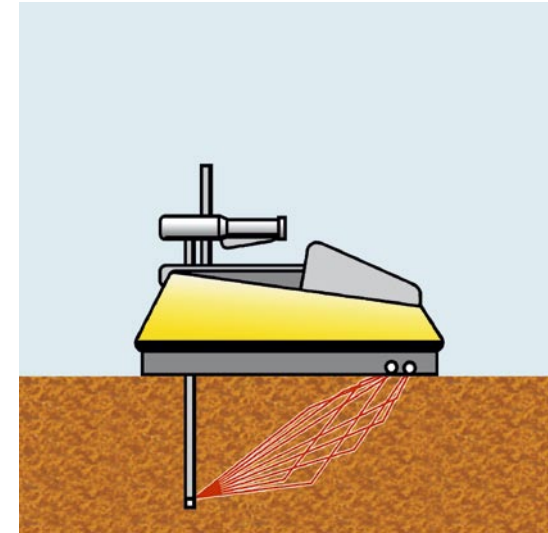
Soil Compaction Test Methods



core test



sand replacement



nuclear gauge

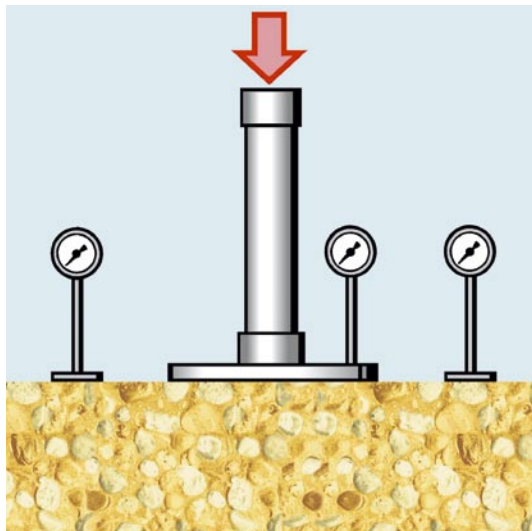
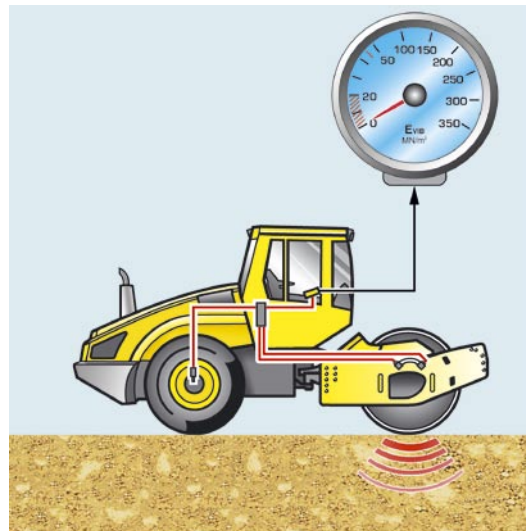
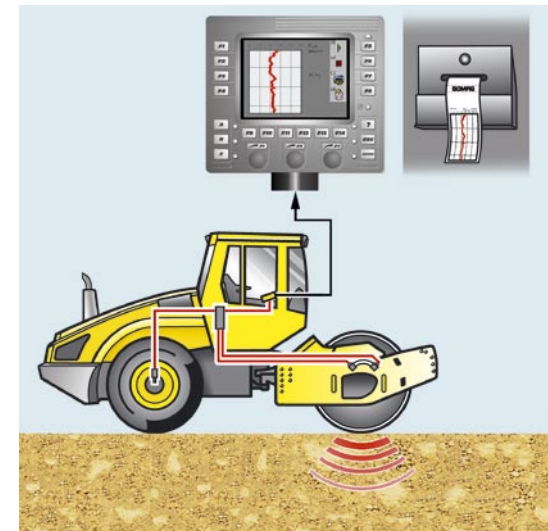


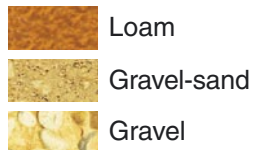
plate bearing test



BOMAG E_{vib} Meter



BOMAG BTM plus / BTM prof



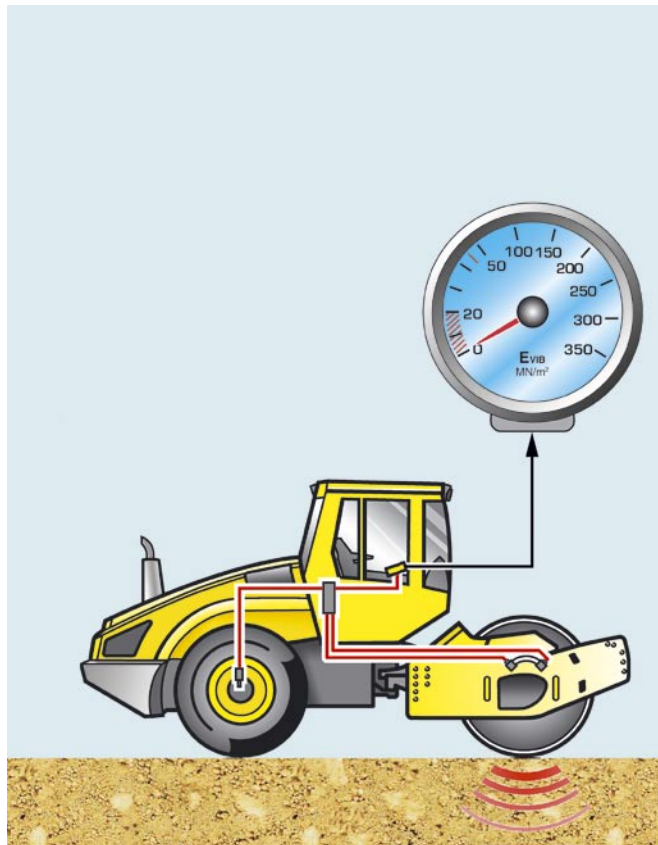
BOMAG

Soil Compaction Test Methods, FDVK*

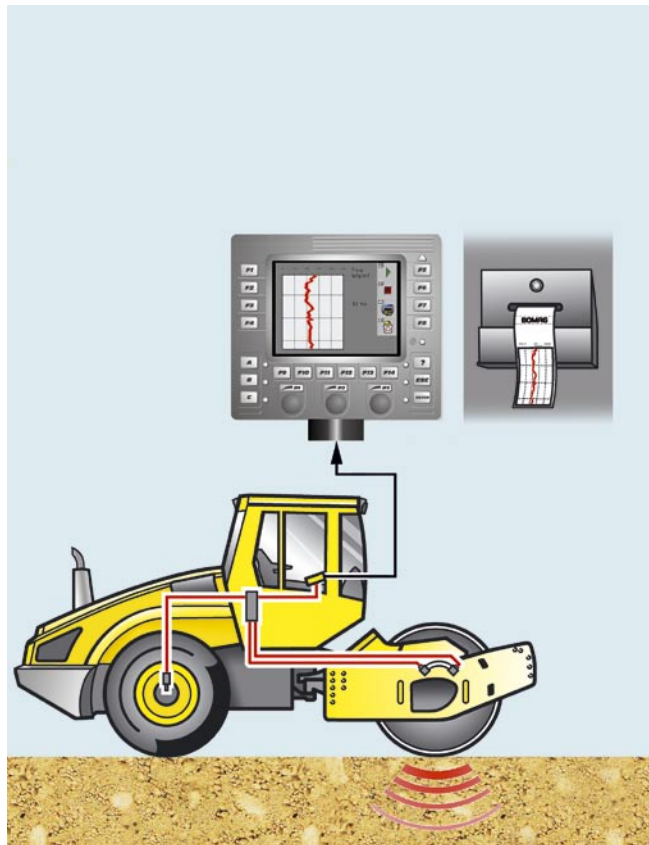
Roller integrated compaction measurement and documentation systems

Measuring of the dynamic soil stiffness E_{VIB} [MN/m²]

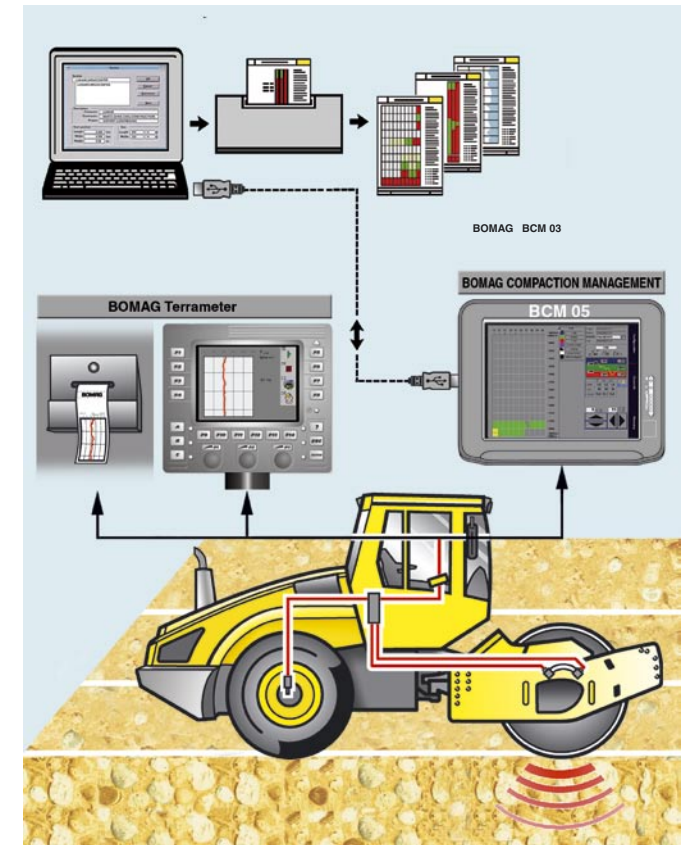
Compaction measurement systems



BEM
BOMAG E_{VIB} -Meter



BTM plus / BTM prof
BOMAG Terrameter



BTM prof and BCM 05
BOMAG Terrameter and
BOMAG COMPACTON Management
System



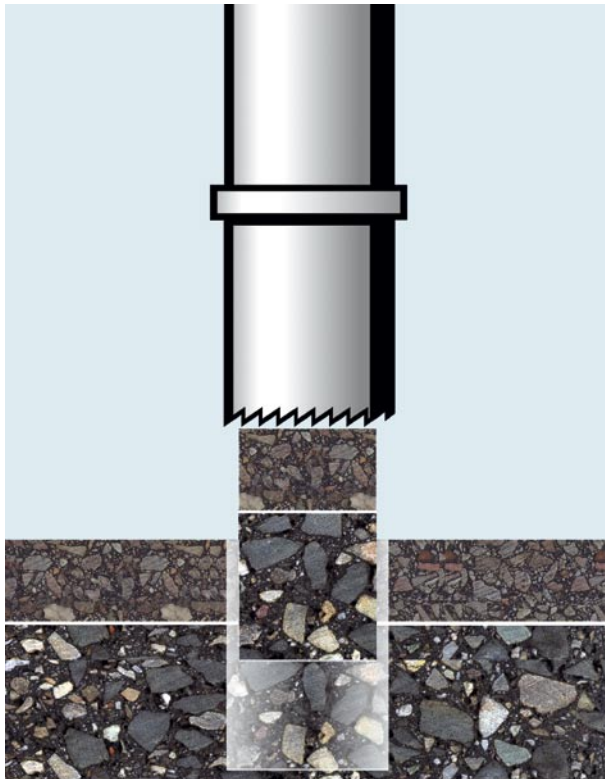
Gravel-sand



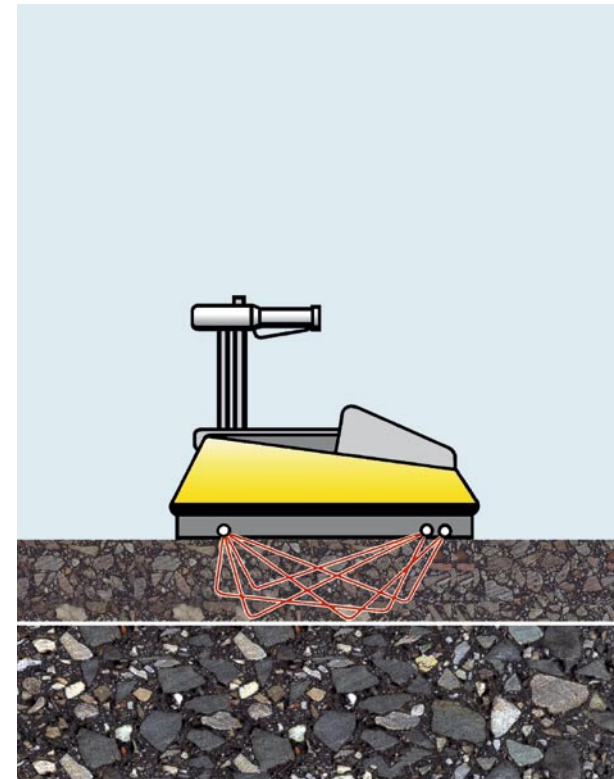
Gravel

*FDVK (SCDCC) = Surface Covering Dynamic Compaction Control

Asphalt Compaction Test Methods



core test



nuclear gauge



Asphalt wearing course

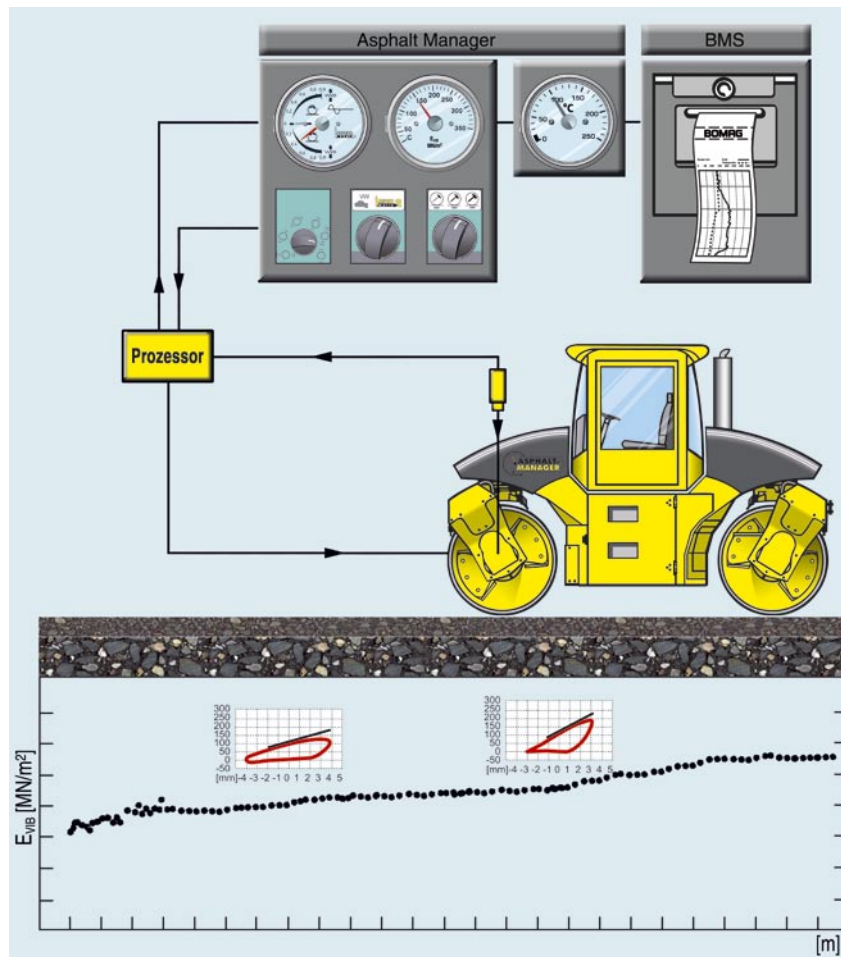


Asphalt base course

BOMAG

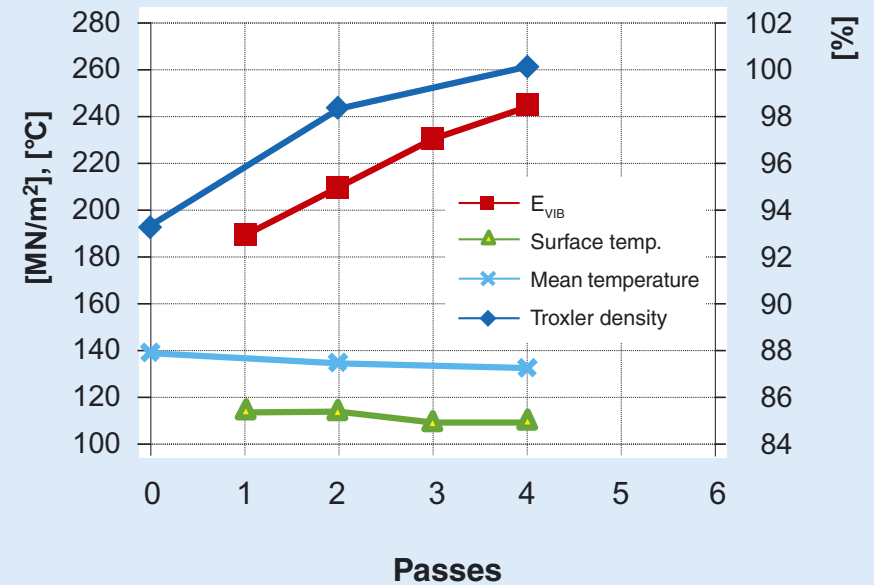
Asphalt compaction assessment procedure

Measuring of the dynamic stiffness E_{VIB} [MN/m²]



Asphalt Manager

E_{VIB} and density as function of passes;
BW 174 AD Asphalt Manager
Asphalt base course 0/32 CS B65, d = 10 cm



Relation between E_{VIB} and density

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Mix-in-place Recycling

Methods and equipment for the reconstruction of low trafficked roads and road reinforcements

← Direction of work

Cement truck

Bitumen tank truck

BOMAG stabilizer MPH 122

Water truck

BOMAG BW 213 DH-4
VARIOCONTROL



Construction of a new base course by reusing existing road construction materials
and adding cement and/or foam bitumen or bitumen emulsion

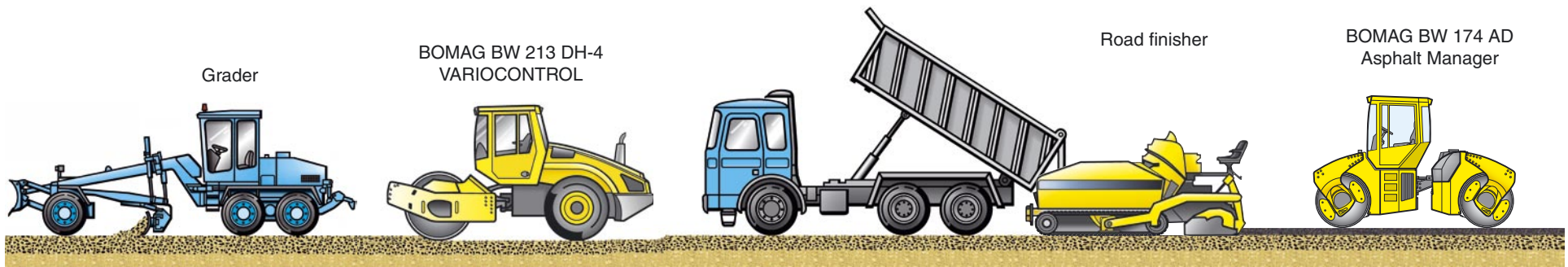
← Direction of work

Grader

BOMAG BW 213 DH-4
VARIOCONTROL

Road finisher

BOMAG BW 174 AD
Asphalt Manager



Laying of a new surface layer



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Soil compaction Optimum values for layer thickness

Type and operating weight

Compacted layer thickness (m)

kg	rock	gravel, sand	mixed soil	loam, clay
				

	BT 60/4	62	-	• 0,35	• 0,30	0,25
	BT 65/4	68	-	• 0,40	• 0,30	0,25
	BT 80 D	81	-	• 0,40	• 0,30	0,25
	BP 6/30	46	-	• 0,15	0,15	-
	BP 8/34	54	-	• 0,20	0,20	-
	BP 10/36-2	83	-	• 0,20	0,20	-
	BP 18/45-2	91	-	• 0,25	0,20	-
	BP 18/45 D-2	104	-	• 0,25	0,20	-
	BP 25/48	138	-	• 0,30	• 0,25	0,15
	BP 25/48 D	150	-	• 0,30	• 0,25	0,15
	BPR 25/45-3	112	-	• 0,30	• 0,25	0,15
	BPR 25/45 D-3	132	-	• 0,30	• 0,25	0,15
	BPR 30/38-3	215	-	• 0,30	• 0,25	0,15
	BPR 30/38 D-3 H	232	-	• 0,30	• 0,25	0,15
	BPR 40/45 D-3 H	348	-	• 0,35	• 0,30	0,20
	BPR 45/55 D	375	-	• 0,35	• 0,30	0,25
	BPR 50/52 D-3 H	513	-	• 0,40	• 0,30	0,20
	BPR 55/65 D	408	-	• 0,40	• 0,35	0,25
	BPR 65/52 D-3	545	-	• 0,40	• 0,30	0,20
	BPR 65/70 D	575	0,35	• 0,45	• 0,40	0,30

Type and operating weight

Compacted layer thickness (m)

kg	rock	gravel, sand	mixed soil	loam, clay
				

	BPR 75/60 D-3	745	0,50	• 0,60	• 0,40	0,25
	BPR 75/60 HD-3*	771	-	• 0,70	• 0,50	• 0,30
	BPH 80/65 S	740	0,50	• 0,60	• 0,40	-
	BPH 80/65	780	0,50	• 0,60	• 0,40	-

BP = Non Reversible Vibratory Plates BPR = Reversible Vibratory Plates
 BPH = Reversible hydraulic Vibratory Plates
 D = diesel engine H = Hatz engine
 * Vibratory plate with particularly high amplitude
 • compaction equipment is well suited for this type of soil

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Soil compaction Optimum values for layer thickness

Type and operating weight

Compacted layer thickness (m)

kg	rock	gravel, sand	mixed soil	loam, clay
				



BW 55 E	161	-	• 0,20	• 0,20	-
BW 71 E-2	468	-	• 0,25	• 0,25	0,15
BW 65 S-2	626	-	• 0,20	• 0,20	0,10
BW 75 S-2	943	-	• 0,25	• 0,25	0,15
BW 62 H	602	-	• 0,20	• 0,20	0,10
BW 65 H	709	-	• 0,20	• 0,20	0,10
BW 75 H	1015	-	• 0,25	• 0,25	0,15

Type and operating weight

Compacted layer thickness (m)

kg	rock	gravel, sand	mixed soil	loam, clay
				



BMP 851	1548	-	0,50	• 0,40	• 0,30
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- compaction equipment is well suited for this type of soil

BOMAG

Soil compaction Optimum values for layer thickness

Type and operating weight
(including ROPS and cab)

Compacted layer thickness (m)

t	rock	gravel, sand	mixed soil	loam, clay
				

	BW 80 AD-2	1.5	-	• 0,25	0,20	0,15
	BW 90 AD-2	1.5	-	• 0,25	0,20	0,15
	BW 900-2	1.3	-	• 0,20	0,15	0,15
	BW 80 ADH-2	1.6	-	• 0,25	0,20	0,15
	BW 80 ADS	1.6	-	• 0,20	0,15	0,15
	BW 100 ADM-2	1.6	-	• 0,25	0,20	0,15
	BW 100 AD-4	2.5	-	• 0,30	0,25	0,15
	BW 120 AD-4	2.7	-	• 0,30	0,25	0,15
	BW 125 ADH	3.4	-	• 0,30	0,25	0,15
	BW 135 AD	3,6	-	• 0,30	0,25	0,15
	BW 138 AD	4.2	-	• 0,35	0,30	0,15
	BW 141 AD-4	8.0	-	• 0,40	0,30	0,20
	BW 141 AD-4-AM	8.6	-	• 0,50	0,40	0,20
	BW 151 AD-4	8,3	-	• 0,40	0,30	0,20
	BW 151 AD-4-AM	8,9	-	• 0,50	0,40	0,20
	BW 161 AD-4	10.1	-	• 0,40	0,30	0,20
	BW 161 AD-4-AM	10,5	-	• 0,50	0,40	0,20
	BW 161 ADH-4	10,7	-	• 0,40	0,30	0,20
	BW 202 AD-4	11.8	-	• 0,50	0,40	0,20
	BW 202 AD-4-AM	12.2	-	• 0,50	0,40	0,20
	BW 202 AHD-4	13,0	-	• 0,50	0,40	0,20

Type and operating weight
(including ROPS and cab)

Compacted layer thickness (m)

t	rock	gravel, sand	mixed soil	loam, clay
				

	BW 90 AC-2	1.7	-	• 0,20	0,15	0,15
	BW 100 AC-4	2.3	-	• 0,25	0,20	0,15
	BW 120 AC-4	2.5	-	• 0,25	0,20	0,15
	BW 138 AC	4.0	-	• 0,35	0,30	0,15
	BW 24 RH**	10-24	-	• 0,30	• 0,25	0,20
	BW 27 RH**	14-27	-	• 0,40	• 0,30	0,30

AD = Tandem vibratory roller

AC = Combination roller

AM = Asphalt Manager

* pivot steered

** Reference values apply for full ballasting

• compaction equipment is well suited for this type of soil

BOMAG

Soil compaction Optimum values for layer thickness

Type and operating weight
(including ROPS and cab)

Compacted layer thickness (m)

t	rock	gravel, sand	mixed soil	loam, clay
				

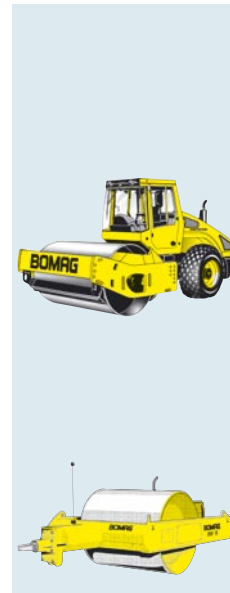
Type and operating weight
(including ROPS and cab)

Compacted layer thickness (m)

t	rock	gravel, sand	mixed soil	loam, clay
				



BW 124 DH-3	3.3	-	0,35	• 0,25	0,15
BW 124 PDH-3	3.4	-	0,35	0,25	• 0,20
BW 145 D-3	5.0	-	• 0,40	• 0,30	0,15
BW 145 DH-3	5.1	-	• 0,40	• 0,30	0,15
BW 145 PDH-3	5.3	-	0,40	0,30	• 0,20
BW 177 D-4	7.2	-	• 0,45	• 0,35	0,15
BW 177 DH-4	7.4	-	• 0,45	• 0,35	0,15
BW 177 PDH-4	7.6	-	0,45	0,35	• 0,20
BW 177 DH-4 BVC	7.8	• 0,80	• 0,50	• 0,40	0,20
BW 179 DH-4	9.0	0,80	• 0,50	• 0,40	0,20
BW 179 PDH-4	9.1	0,80	0,50	0,40	• 0,25
BW 211 D-4	11.0	• 0,70	• 0,50	• 0,40	0,20
BW 211 PD-4	11.9	0,70	0,50	0,40	• 0,25
BW 213 D-4	12.5	• 0,80	• 0,50	• 0,40	0,20
BW 213 DH-4	12.7	• 0,90	• 0,65	• 0,50	0,25
BW 213 PDH-4	13.1	0,90	0,60	0,50	• 0,30
BW 213 DH-4 BVC	14.9	• 1,20	• 0,80	• 0,60	0,30
BW 213 DH-4 BVC/P	14.8	• 1,20	• 0,80	• 0,60	0,30



BW 214 DH-4	14.4	• 1,00	• 0,75	• 0,55	0,25
BW 214 PDH-4	14,8	1,00	0,70	0,55	• 0,30
BW 216 D-4	15,7	• 1,10	• 0,75	• 0,55	0,30
BW 216 DH-4	16,6	• 1,20	• 0,80	• 0,60	0,30
BW 216 PDH-4	17,0	1,20	0,80	0,65	• 0,35
BW 219 DH-4	19,2	• 1,60	• 1,20	• 0,80	0,35
BW 219 PDH-4	19,7	1,60	1,20	0,80	• 0,40
BW 226 DH-4	25,2	• 2,00	• 1,50	• 1,00	0,50
BW 226 PDH-4	24,8	2,00	1,50	1,00	• 0,55
BW 225 D-3 BVC	25,8	• 2,00	• 1,60	• 1,10	0,55
BW 6	5,9	• 0,80	• 0,60	• 0,45	0,25
BW 6 S	6,8	0,80	0,60	0,45	• 0,30

D = Smooth drum
PD = Padfoot drum
DH, PDH = excellent climbing ability
BVC = VARIOCONTROL
/P = with extension plates
• Roller is well suited for this type of soil

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Compaction output in earthworks and road constructions Soil compaction (m³/h)

Type and operating weight
(including ROPS and cab)

Volume output (m³/h)

t	rock	gravel, sand	mixed soil	loam, clay
				



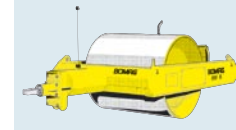
BW 124 DH-3	3,3	-	105-210	75-150	40-90
BW124 PDH-3	3,4	-	105-210	75-150	50-100
BW 145 D-3	5.0	-	160-320	120-240	60-120
BW 145 DH-3	5.1	-	160-320	120-240	60-120
BW 145 PDH-3	5.3	-	160-320	120-240	80-160
BW 177 D-4	7.2	-	210-420	160-320	70-140
BW 177 DH-4	7.4	-	210-420	160-320	70-140
BW 177 PDH-4	7.6	-	210-420	160-320	95-190
BW 177 DH-4 BVC	7,8	370-740	240-480	190-380	95-190
BW 179 DH-4	9.0	370-740	240-480	190-380	95-190
BW 179 PDH-4	9.1	370-740	240-480	190-380	140-280
BW 211 D-4	11.0	400-800	270-540	220-440	110-220
BW 211 PD-4	11,9	400-800	270-540	220-440	160-320
BW 213 D-4	12.5	470-940	300-600	240-480	120-240
BW 213 DH-4	12.7	530-1060	360-720	270-540	180-360
BW 213 PDH-4	13.1	530-1060	360-720	270-540	210-420
BW 213 DH-4 BVC	14.9	700-1400	480-960	360-720	210-420
BW 213 DH-4 BVC/P	14.8	700-1400	480-960	360-720	210-420
BW 214 DH-4	14.4	590-1200	420-840	300-600	180-360
BW 214 PDH-4	14.8	590-1200	420-840	300-600	210-420



Type and operating weight
(including ROPS and cab)

Volume output (m³/h)

t	rock	gravel, sand	mixed soil	loam, clay
				



BW 216 D-4	15.7	650-1200	450-920	340-680	210-420
BW 216 DH-4	16.6	700-1400	480-960	360-720	210-420
BW 216 PDH-4	17.0	700-1400	480-960	360-720	250-500
BW 219 DH-4	19.2	940-1880	700-1400	560-960	250-500
BW 219 PDH-4	19.7	940-1880	700-1400	560-960	280-560
BW 226 PDH-4	24.8	1180-2120	880-1750	680-1200	385-770
BW 226 DH-4	25.2	1180-2120	880-1750	680-1200	350-700
BW 225 D-4 BVC	25,8	1180-2120	980-1800	700-1350	385-770

BW6	5.9	470-940	360-720	270-540	180-360
BW 6 S	6.8	470-940	360-720	270-540	210-420

D = Smooth drum
PD = Padfoot drum
DH, PDH = excellent climbing ability
BVC = VARIOCONTROL
/P = with extension plates

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Compaction output in earthworks and road constructions Asphalt compaction (t/h)

Type and operating weight (including ROPS and cab)

Volume output

Productivity (t/h) at specified layer thickness

(t)			
	wearing course 2-4 cm	binder course 6-8 cm	base course 10-14 cm



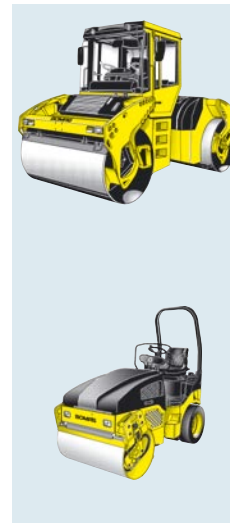
BW 900 AD-2	1.35	10-25	20-40	30-60
BW 80 AD-2	1.5	10-30	25-45	35-70
BW 80 ADH-2	1.6	10-30	25-45	35-70
BW 90 AD-2	1.5	15-30	30-50	40-80
BW 100 ADM-2	1.6	15-40	35-60	50-90
BW 100 AD-4	2.4	15-40	40-60	60-100
BW 120 AD-4	2.7	20-45	40-70	70-120
BW 125 ADH	3.4	20-45	40-65	70-110
BW 135 AD	3.6	30-55	50-85	75-130
BW 138 AD	4.2	30-55	50-90	75-135
BW 141 AD-4	8.0	35-70	70-150	100-180
BW 141 AD-4-AM	8.6	35-70	80-160	110-190
BW 151 AD-4	8.3	40-80	80-170	120-200
BW 151 AD-4-AM	8.9	50-90	100-180	150-210
BW 154* AD-4	9.1	40-80	80-170	120-200
BW 154* AD-4-AM	9.6	50-90	100-180	150-210
BW 161 AD-4	10.1	50-100	100-200	150-230
BW 161 AD-4-AM	10.5	60-120	110-220	170-280
BW 161 ADH-4	10.7	55-110	105-210	160-250
BW 170 AD-2**	8.5	40-90	90-165	130-190
BW 174* AD-2**	9.0	40-90	90-165	130-190
BW 170 AD-2**-AM	9.0	50-100	90-180	140-210
BW 174* AD-2**-AM	9.6	50-110	90-180	140-210

Type and operating weight (including ROPS and cab)

Volume output

Productivity (t/h) at specified layer thickness

(t)			
	wearing course 2-4 cm	binder course 6-8 cm	base course 10-14 cm



BW 184* AD-2**	12.9	65-100	110-210	190-300
BW 184* AD-2**-AM	12.9	65-130	110-230	190-320
BW 202 AD-4	11.8	80-160	130-270	200-340
BW 202 AD-4 AM	12.2	90-180	140-300	210-380
BW 202 AHD-4	13.0	90-180	140-280	210-360
BW 90 AC-2	1.7	10-30	25-40	40-60
BW 100 AC-4	2.3	15-35	35-50	45-90
BW 120 AC-4	2.5	20-40	40-60	55-105
BW 138 AC	4.0	30-55	50-90	65-115
BW 174* AC-2**	8.6	40-80	90-160	130-185
BW 174* AC-2**-AM	9.2	50-90	100-170	140-200

AD = Tandem vibratory roller
AC = Combination roller
AM = Asphalt Manager
* = split drums
** = pivot steered

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Compaction output in earthworks and road constructions Asphalt compaction (m²/h)

Type and operating weight
(including ROPS and cab)

Area output

Productivity (m²/h) at specified layer thickness

(t)			
	wearing course 2-4 cm	binder course 6-8 cm	base course 10-14 cm

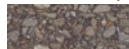


BW 900-2	1,35	250-350	200-250	170-200
BW 80 AD-2	1,5	250-350	200-250	170-200
BW 80 ADH-2	1,6	250-350	200-250	170-200
BW 90 AD-2	1,5	250-400	210-280	200-250
BW 100 ADM-2	1,6	300-500	220-300	220-280
BW 100 AD-4	2,4	300-500	250-300	250-300
BW 120 AD-4	2,7	350-600	250-350	250-350
BW 125 ADH	3,4	350-600	270-350	270-350
BW 135 AD	3,6	500-800	320-450	300-380
BW 138 AD	4,2	500-800	320-500	300-400
BW 141 AD-4	8,0	800-1300	500-800	400-550
BW 141 AD-4-AM	8,6	800-1350	500-800	500-600
BW 144* AD-4	8,8	800-1300	500-800	400-550
BW 151 AD-4	3,3	1000-1650	600-900	500-650
BW 151 AD-4-AM	8,9	1000-1700	600-1000	500-700
BW 154* AD-4	9,1	1000-1650	600-900	500-650
BW 154* AD-4-AM**	9,6	1000-1700	600-1000	500-800
BW 161 AD-4	10,1	1200-1800	700-950	600-750
BW 161 AD-4-AM	10,5	1300-2100	850-1150	650-950
BW 161 ADH-4	10,7	1200-2000	800-1100	600-900
BW 170 AD-2**	8,5	1100-1700	600-850	500-650
BW 170 AD-2-AM**	9,0	1100-1800	600-900	500-700
BW 174* AD-2**	9,0	1100-1700	600-850	500-650
BW 174* AD-2-AM**	9,6	1100-1800	600-900	500-700

Type and operating weight
(including ROPS and cab)

Area output

Productivity (m²/h) at specified layer thickness

(t)			
	wearing course 2-4 cm	binder course 6-8 cm	base course 10-14 cm



BW 184* AD-2**	12,9	1300-1800	800-1000	700-900
BW 184* AD-2-AM**	12,9	1300-2000	800-1100	700-1000
BW 202 AD-4	11,8	1450-2400	850-1300	750-950
BW 202 AD-4-AM	12,2	1600-2800	900-1500	900-1100
BW 202 AHD-4	13,0	1500-2600	900-1500	900-1100
BW 90 AC-2	1,7	250-350	200-250	170-200
BW 100 AC-4	2,3	250-400	220-300	200-250
BW 120 AC-4	2,5	300-500	250-350	220-280
BW 138 AC	4,0	500-800	320-500	250-370
BW 174* AC-2**	8,6	1000-1500	600-800	500-600
BW 174* AC-2**-AM	9,0	1000-1600	600-900	500-700



AD = Tandem vibratory roller

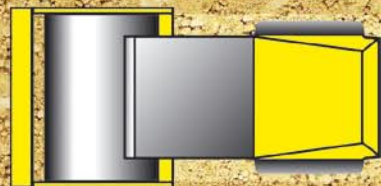
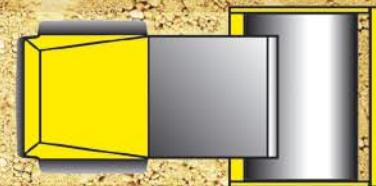
AC = Combination roller

AM = Asphalt Manager

* = split drums

** = pivot steered

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