

Loading and load-securing instructions of Heidelberg Materials AG according to EN 12 195-1:2010

Expert opinion No.: 0.07.1223/N094

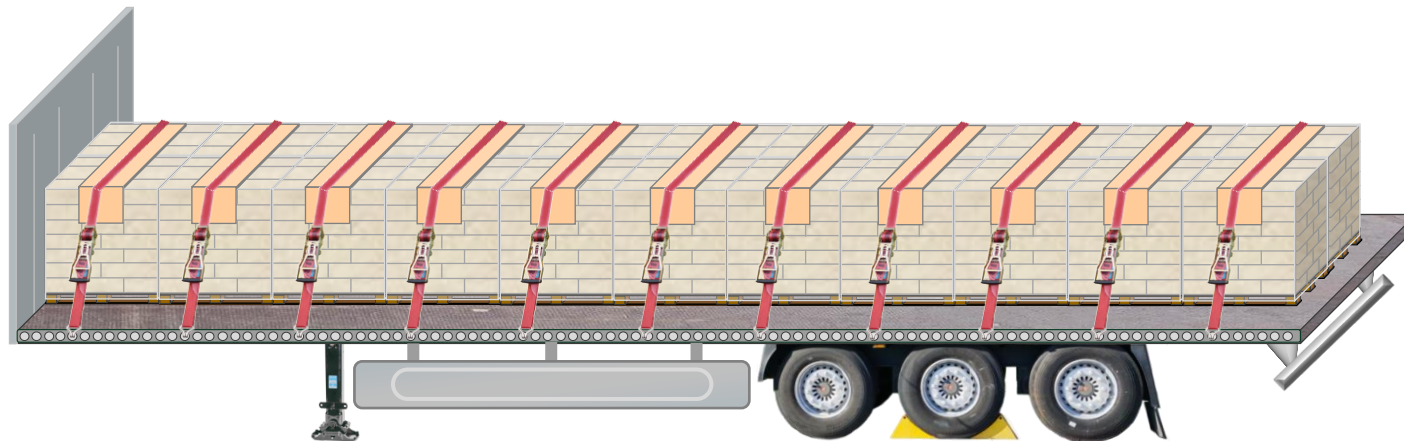
Certificate No.: 0.07.1223/N094

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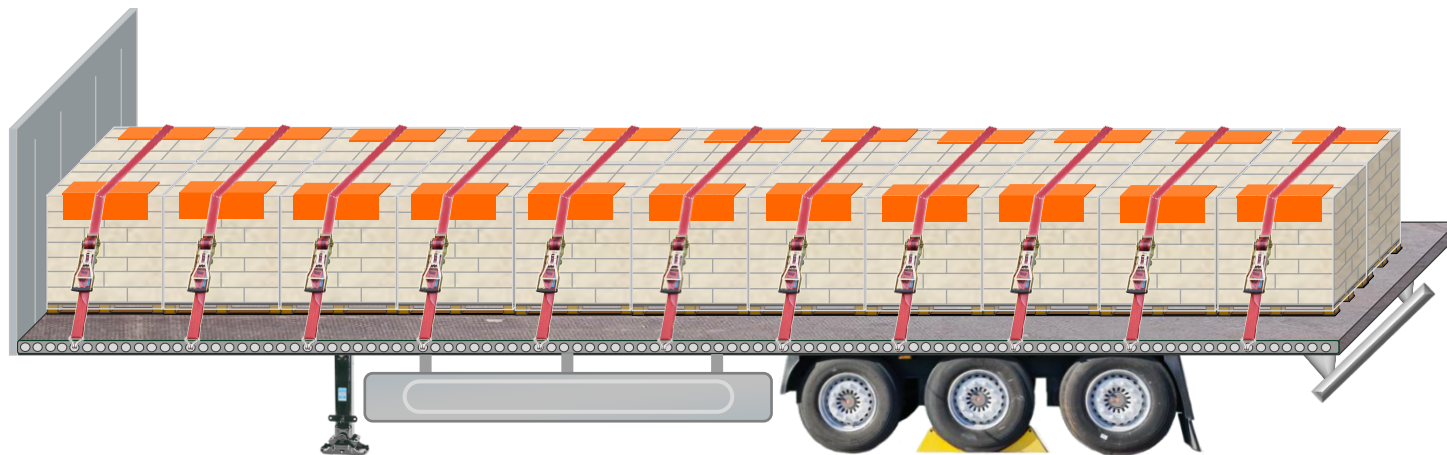
1. Loading of bagged goods onto 1070-kg pallets - securing with edge protection GWS® -LaSi-PAPP

- **Loading area condition:** The loading area floor must be undamaged, swept clean and dry at all times (residual moisture without standing water is permitted) free of all oil, frost, ice and snow.
- **Load description:** The various bags are to be palletised, covered with a 90-µm film bonnet, then stacked to form a composite logistics unit. However, the non-uniform nature of the bags mean they may not always stack up regularly with the pallet.
- **The load can be secured without anti-slip mats.** According to EN 12 195-1, the friction coefficient for sawn timber (pallet) on plywood (loading surface) is μ 0.45. If the loading area floor is a steel surface, anti-slip rubber mats with a friction coefficient of μ 0.6 must be used under the load.
- Proper **load distribution** must be observed using the fifth-wheel plate and axle loads as benchmarks.
- To meet the dynamic driving test requirements of DIN EN 12642, the palletised bags should be positioned snugly against the vehicle's front bulkhead. Small gaps may be permissible between items in the direction of travel. Each stack of palletised bags must be secured with a single lashing strap and a GWS-LaSi cardboard sheet per storage space, as illustrated in the accompanying diagram. If standard securing isn't feasible, the lashing straps may also be tensioned across two rows, or crosswise in the case of palletised bags. The risk of palletised bags bursting or tearing must be eliminated.
- When securing with lashing straps and GWS-LaSi cardboard, each lashing strap must be pre-tensioned to at least S_{TF} 300 daN.
- Initially, each lashing strap should be tensioned to S_{TF} 500 daN to ensure a sustained S_{TF} 300 daN pre-tension. For road safety, drivers must inspect the load before departure and adjust securing if needed.



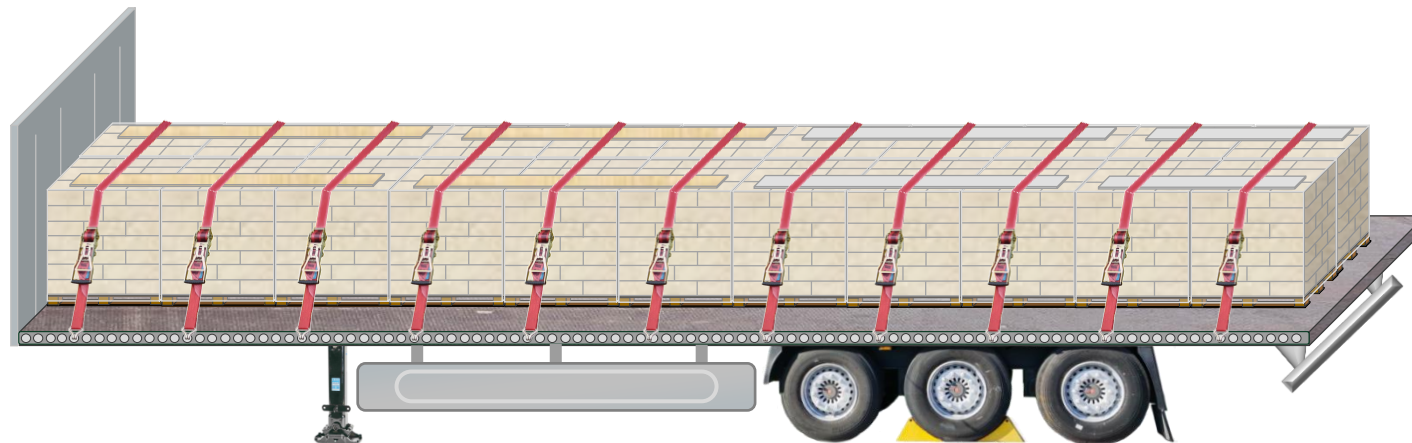
1. Loading of bagged goods onto 1070-kg pallets - securing with sturdy edge protectors (e.g. orange, black, etc.)

- **Loading area condition:** The loading area floor must be undamaged, swept clean and dry at all times (residual moisture without standing water is permitted) free of all oil, frost, ice and snow.
- **Load description:** The various bags are to be palletised, covered with a 90- μ m film bonnet, then stacked to form a composite logistics unit. However, the non-uniform nature of the bags mean they may not always stack up regularly with the pallet.
- **The load can be secured without anti-slip mats.** According to EN 12 195-1, the friction coefficient for sawn timber (pallet) on plywood (loading surface) is μ **0.45**. If the loading area floor is a steel loading surface, anti-slip rubber mats with a friction coefficient of μ 0.6 must be used under the load.
- Proper **load distribution** must be observed using the fifth-wheel plate and axle loads as benchmarks.
- To meet the dynamic driving test requirements of DIN EN 12642, the palletised bags should be positioned snugly against the vehicle's front bulkhead. Small gaps may be permissible between items in the direction of travel. The palletised bags must be secured with a lashing strap and sturdy edge protectors as illustrated in the accompanying diagram. If standard securing isn't feasible, the lashing straps may also be tensioned across two rows, or crosswise in the case of palletised bags. The risk of palletised bags bursting or tearing must be eliminated.
- When lashing down with lashing straps and using sturdy edge protectors, each lashing strap must be pre-tensioned to at least S_{TF} 300 daN.
- Initially, each lashing strap should be tensioned to S_{TF} 500 daN to ensure a sustained S_{TF} 300 daN pre-tension. For road safety, drivers must inspect the load before departure and adjust securing if needed.



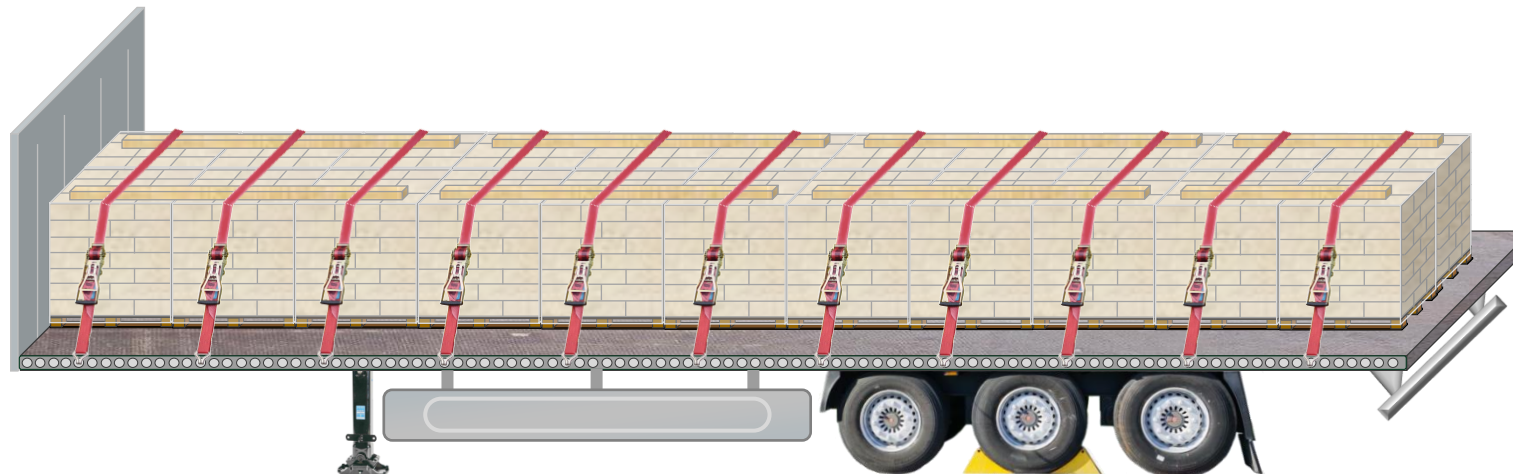
1. Loading bagged goods onto 1070-kg pallets - securing with sturdy wooden or aluminium insert boards

- **Loading area condition:** The loading area floor must be undamaged, swept clean and dry at all times (residual moisture without standing water is permitted) free of all oil, frost, ice and snow.
- **Load description:** The various bags are to be palletised, covered with a 90- μm film bonnet, then stacked to form a composite logistics unit. However, non-uniform bags may not always stack up neatly with the pallet.
- **The load can be secured without anti-slip mats.** According to EN 12 195-1, the friction coefficient for sawn timber (pallet) on plywood (loading surface) is μ **0.45**. If the loading area floor is a steel loading surface, anti-slip rubber mats with a friction coefficient of μ 0.6 must be used under the load.
- Proper **load distribution** must be observed using the fifth-wheel plate and axle loads as benchmarks.
- To meet the dynamic driving test requirements of DIN EN 12642, the palletised bags should be positioned snugly against the vehicle's front bulkhead. Small gaps may be permissible between items in the direction of travel. The palletised bags must be secured with a lashing strap and sturdy wooden boards as illustrated in the accompanying diagram. If standard securing isn't feasible, the lashing straps may also be tensioned across two rows of racks, crosswise in the case of palletised bags. The risk of palletised bags bursting or tearing must be eliminated.
- When lashing down with lashing straps and using sturdy wooden or aluminium insert boards, each lashing strap must be pre-tensioned to at least S_{TF} 300 daN.
- Initially, each lashing strap should be tensioned to S_{TF} 500 daN to ensure a sustained S_{TF} 300 daN pre-tension. For road safety, drivers must inspect the load before departure and adjust securing if needed.



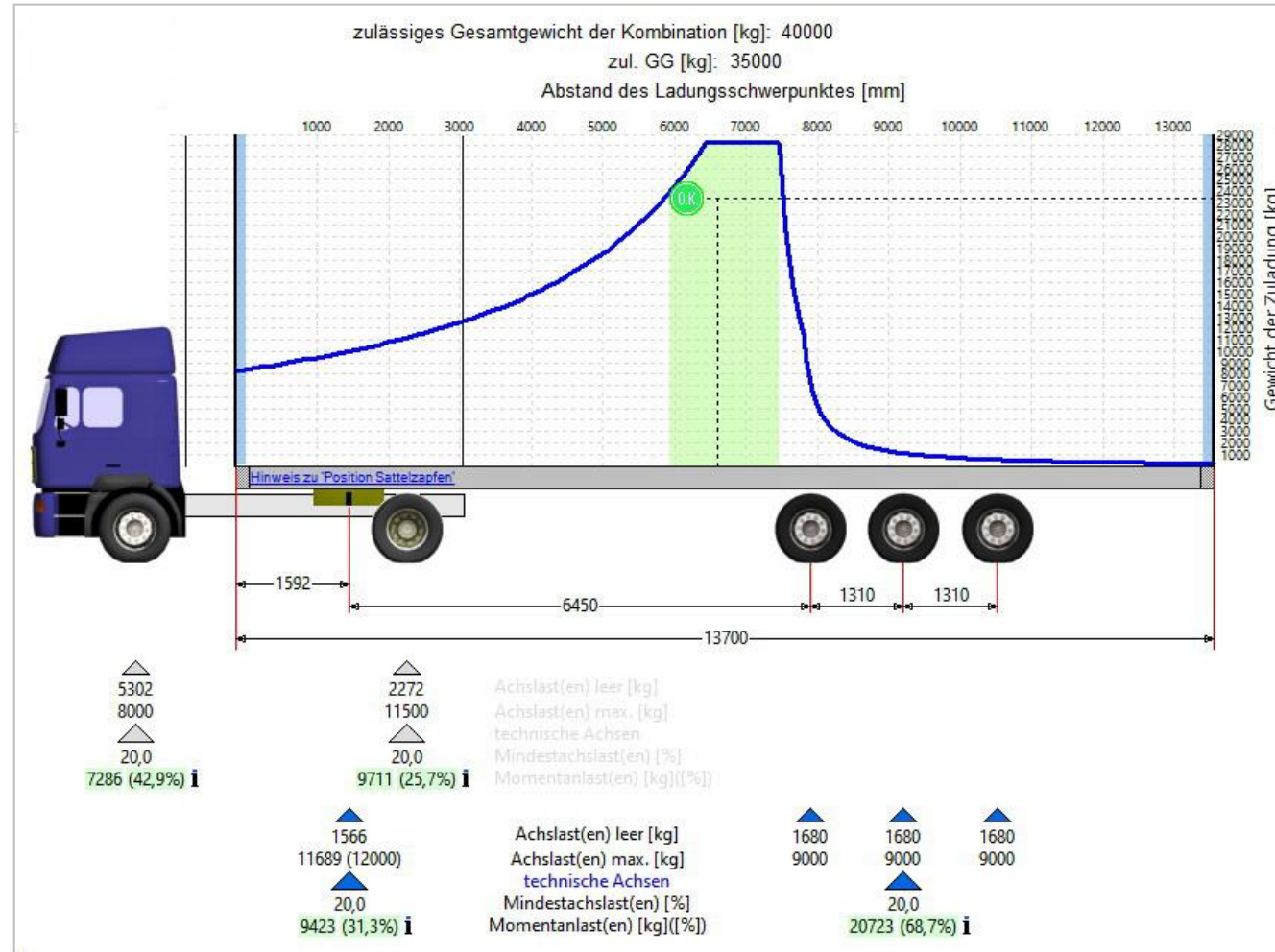
1. Loading bagged goods onto 1070-kg pallets - securing with sturdy squared timber

- **Loading area condition:** The loading area floor must be undamaged, swept clean and dry at all times (residual moisture without standing water is permitted) free of all oil, frost, ice and snow.
- **Load description:** The various bags are to be palletised, covered with a 90- μ m film bonnet, then stacked to form a composite logistics unit. However, the non-uniform nature of the bags mean they may not always stack up regularly with the pallet.
- **The load can be secured without anti-slip mats.** According to EN 12 195-1, the friction coefficient for sawn timber (pallet) on plywood (loading surface) is μ **0.45**. If the loading area floor is a steel loading surface, anti-slip rubber mats with a friction coefficient of μ 0.6 must be used under the load.
- Proper load distribution must be observed using the fifth-wheel plate and axle loads as benchmarks.
- To meet the dynamic driving test requirements of DIN EN 12642, the palletised bags should be positioned snugly against the vehicle's front bulkhead. Small gaps may be permissible between items in the direction of travel. The palletised bags must be secured with a lashing strap and sturdy squared timbers as illustrated in the accompanying diagram. If standard securing isn't feasible, the lashing straps may also be tensioned across two rows of racks, crosswise in the case of palletised bags. The risk of palletised bags bursting or tearing must be eliminated.
- When lashing down with lashing straps and using stable squared lumber, each lashing strap must be pre-tensioned to at least S_{TF} 300 daN.
- Initially, each lashing strap should be tensioned to S_{TF} 500 daN to ensure a sustained S_{TF} 300 daN pre-tension. For road safety, drivers must inspect the load before departure and adjust securing if needed.



1. Loading of bagged goods onto 1070-kg pallets - securing with edge protection

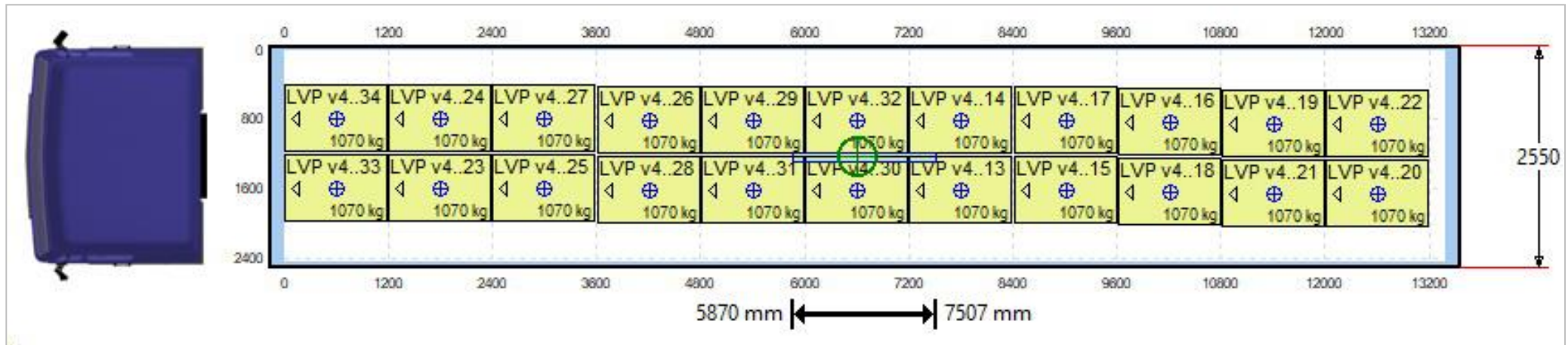
Proper load distribution plan "Bagged goods onto 1070-kg pallets"



1. Loading of bagged goods onto 1070-kg pallets - securing with edge protection

Proper load distribution plan "Bagged goods onto 1070-kg pallets"

Loading plan for 22 pallets



1. Loading of bagged goods onto 1070-kg pallets - securing with edge protection

Proper load distribution plan "Bagged goods onto 1070-kg pallets"

Ladefläche					
Länge [mm]	Breite [mm]	nicht nutzbarer Bereich			
		vorne [mm]	hinten [mm]	links [mm]	rechts [mm]
13700	2550	150	150	50	50
Laderaumbegrenzung					
Belastbarkeit		vorne	hinten	links	rechts
[daN]		5000	3100	0	0

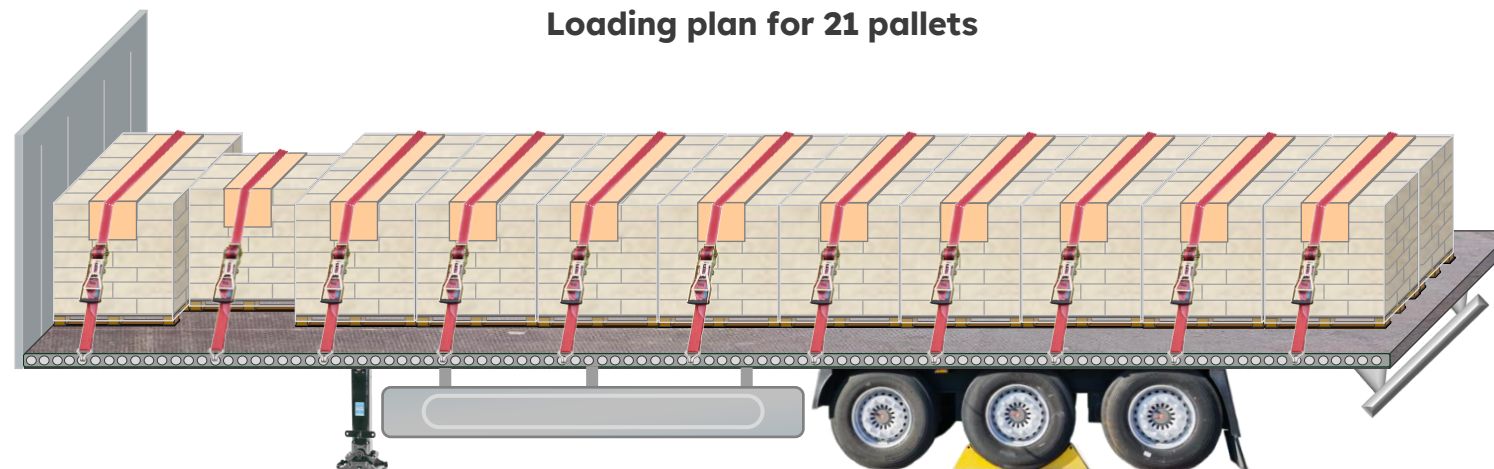
Gesamtladungsschwerpunkt bezogen auf nutz. Bereich der Ladefläche		
Gewicht [kg]	Abstand von vorne [mm]	Abstand von rechts [mm]
23540	6612	1225

Ladungsanordnung bez. auf nutz.Bereich der Ladefläche (Bezugsp. bei Ladung ist die vordere/rechte Seite)						
NR	Bezeichnung	Abstand von vorne [mm]	Abstand von rechts [mm]	Gewicht [kg]	Ausrichtung	Bemerkungen
1	LVP v4.0 HC 107013	7210	1230	1070	nach vorne weisend	
2	LVP v4.0 HC 107014	7210	430	1070	nach vorne weisend	
3	LVP v4.0 HC 107015	8420	1230	1070	nach vorne weisend	
4	LVP v4.0 HC 107016	9620	440	1070	nach vorne weisend	
5	LVP v4.0 HC 107017	8420	430	1070	nach vorne weisend	
6	LVP v4.0 HC 107018	9620	1240	1070	nach vorne weisend	
7	LVP v4.0 HC 107019	10820	460	1070	nach vorne weisend	
8	LVP v4.0 HC 107020	12020	1260	1070	nach vorne weisend	
9	LVP v4.0 HC 107021	10820	1260	1070	nach vorne weisend	
10	LVP v4.0 HC 107022	12020	460	1070	nach vorne weisend	
11	LVP v4.0 HC 107023	1200	1200	1070	nach vorne weisend	
12	LVP v4.0 HC 107024	1200	400	1070	nach vorne weisend	
13	LVP v4.0 HC 107025	2410	1200	1070	nach vorne weisend	
14	LVP v4.0 HC 107026	3610	420	1070	nach vorne weisend	
15	LVP v4.0 HC 107027	2410	400	1070	nach vorne weisend	
16	LVP v4.0 HC 107028	3610	1220	1070	nach vorne weisend	
17	LVP v4.0 HC 107029	4810	430	1070	nach vorne weisend	
18	LVP v4.0 HC 107030	6010	1230	1070	nach vorne weisend	
19	LVP v4.0 HC 107031	4810	1230	1070	nach vorne weisend	
20	LVP v4.0 HC 107032	6010	430	1070	nach vorne weisend	
21	LVP v4.0 HC 107033	0	1170	1070	nach vorne weisend	
22	LVP v4.0 HC 107034	0	370	1070	nach vorne weisend	



2. Loading of bagged goods onto 1220-kg pallets - securing with GWS®-LaSi-PAPP edge protection

- **Loading area condition:** The loading area floor must be undamaged, swept clean and dry at all times (residual moisture without standing water is permitted) free of all oil, frost, ice and snow.
- **Load description:** The various bags are to be palletised, covered with a 90- μ m film bonnet, then stacked to form a composite logistics unit. However, the non-uniform nature of the bags mean they may not always stack up regularly with the pallet.
- **The load can be secured without anti-slip mats.** According to EN 12 195-1, the friction coefficient for sawn timber (pallet) on plywood (loading surface) is μ **0.45**. If the loading area floor is a steel loading surface, anti-slip rubber mats with a friction coefficient of μ 0.6 must be used under the load.
- Proper **load distribution** must be observed using the fifth-wheel plate and axle loads as benchmarks.
- To meet the dynamic driving test requirements of DIN EN 12642, the palletised bags should be positioned snugly against the vehicle's front bulkhead. Small gaps may be permissible between items in the direction of travel. Each stack of palletised bags must be secured with a single lashing strap and a GWS-LaSi cardboard sheet per storage space, as illustrated in the accompanying diagram. If standard securing isn't feasible, the lashing straps may also be tensioned across two rows, or crosswise in the case of palletised bags. The risk of palletised bags bursting or tearing must be eliminated.
- When securing with lashing straps and GWS-LaSi cardboard, each lashing strap must be pre-tensioned to at least S_{TF} 300 daN.
- Initially, each lashing strap should be tensioned to S_{TF} 500 daN to ensure a sustained S_{TF} 300 daN pre-tension. For road safety, drivers must inspect the load before departure and adjust securing if needed.



2. Loading of bagged goods onto 1220-kg pallets - securing with sturdy edge protectors (e.g. orange, black, etc.)

- **Loading area condition:** The loading area floor must be undamaged, swept clean and dry at all times (residual moisture without standing water is permitted) free of all oil, frost, ice and snow.
- **Load description:** The various bags are to be palletised, covered with a 90- μm film bonnet, then stacked to form a composite logistics unit. However, the non-uniform nature of the bags mean they may not always stack up regularly with the pallet.
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- Proper **load distribution** must be observed using the fifth-wheel plate and axle loads as benchmarks.
- To meet the dynamic driving test requirements of DIN EN 12642, the palletised bags should be positioned snugly against the vehicle's front bulkhead. Small gaps may be permissible between items in the direction of travel. The palletised bags must be secured with a lashing strap and sturdy edge protectors as illustrated in the accompanying diagram. If standard securing isn't feasible, the lashing straps may also be tensioned across two rows, or crosswise in the case of palletised bags. The risk of palletised bags bursting or tearing must be eliminated.
- When lashing down with lashing straps and using sturdy edge protectors, each lashing strap must be pre-tensioned to at least S_{TF} 300 daN.
- Initially, each lashing strap should be tensioned to S_{TF} 500 daN to ensure a sustained S_{TF} 300 daN pre-tension. For road safety, drivers must inspect the load before departure and adjust securing if needed.



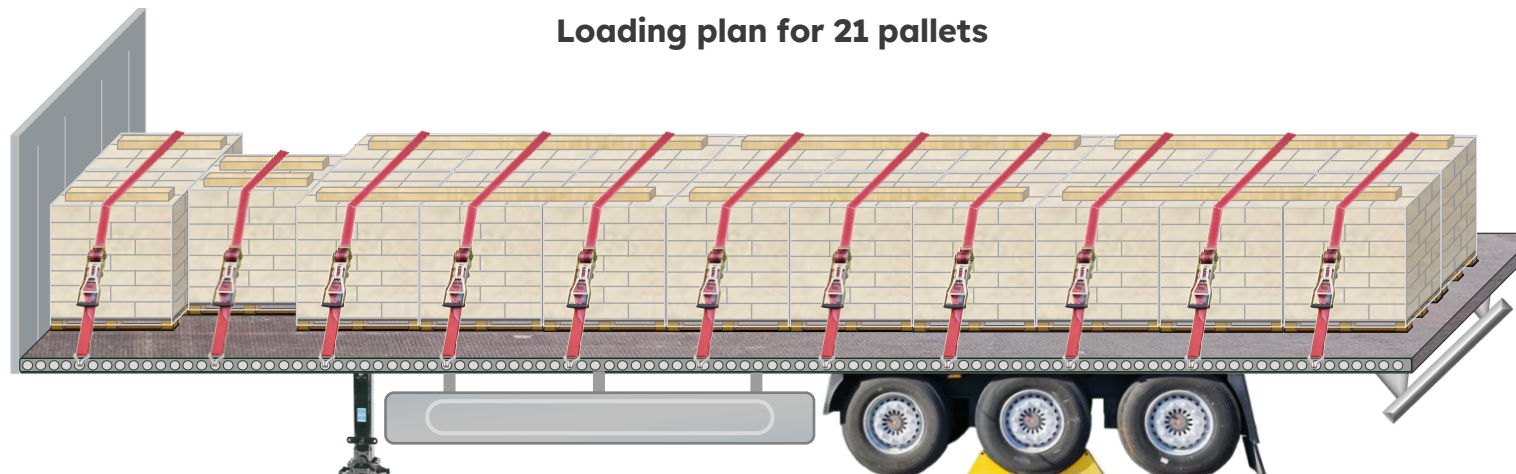
2. Loading of bagged goods onto 1220-kg pallets - securing with stable wooden or aluminium insert boards

- **Loading area condition:** The loading area floor must be undamaged, swept clean and dry at all times (residual moisture without standing water is permitted) free of all oil, frost, ice and snow.
- **Load description:** The various bags are to be palletised, covered with a 90-µm film bonnet, then stacked to form a composite logistics unit. However, non-uniform bags may not always stack up neatly with the pallet.
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- Proper **load distribution** must be observed using the fifth-wheel plate and axle loads as benchmarks.
- To meet the dynamic driving test requirements of DIN EN 12642, the palletised bags should be positioned snugly against the vehicle's front bulkhead. Small gaps may be permissible between items in the direction of travel. The palletised bags must be secured with a lashing strap and sturdy wooden boards as illustrated in the accompanying diagram. If standard securing isn't feasible, the lashing straps may also be tensioned across two rows of racks, crosswise in the case of palletised bags. The risk of palletised bags bursting or tearing must be eliminated.
- When lashing down with lashing straps and using sturdy wooden or aluminium insert boards, each lashing strap must be pre-tensioned to at least S_{TF} 300 daN.
- Initially, each lashing strap should be tensioned to S_{TF} 500 daN to ensure a sustained S_{TF} 300 daN pre-tension. For road safety, drivers must inspect the load before departure and adjust securing if needed.



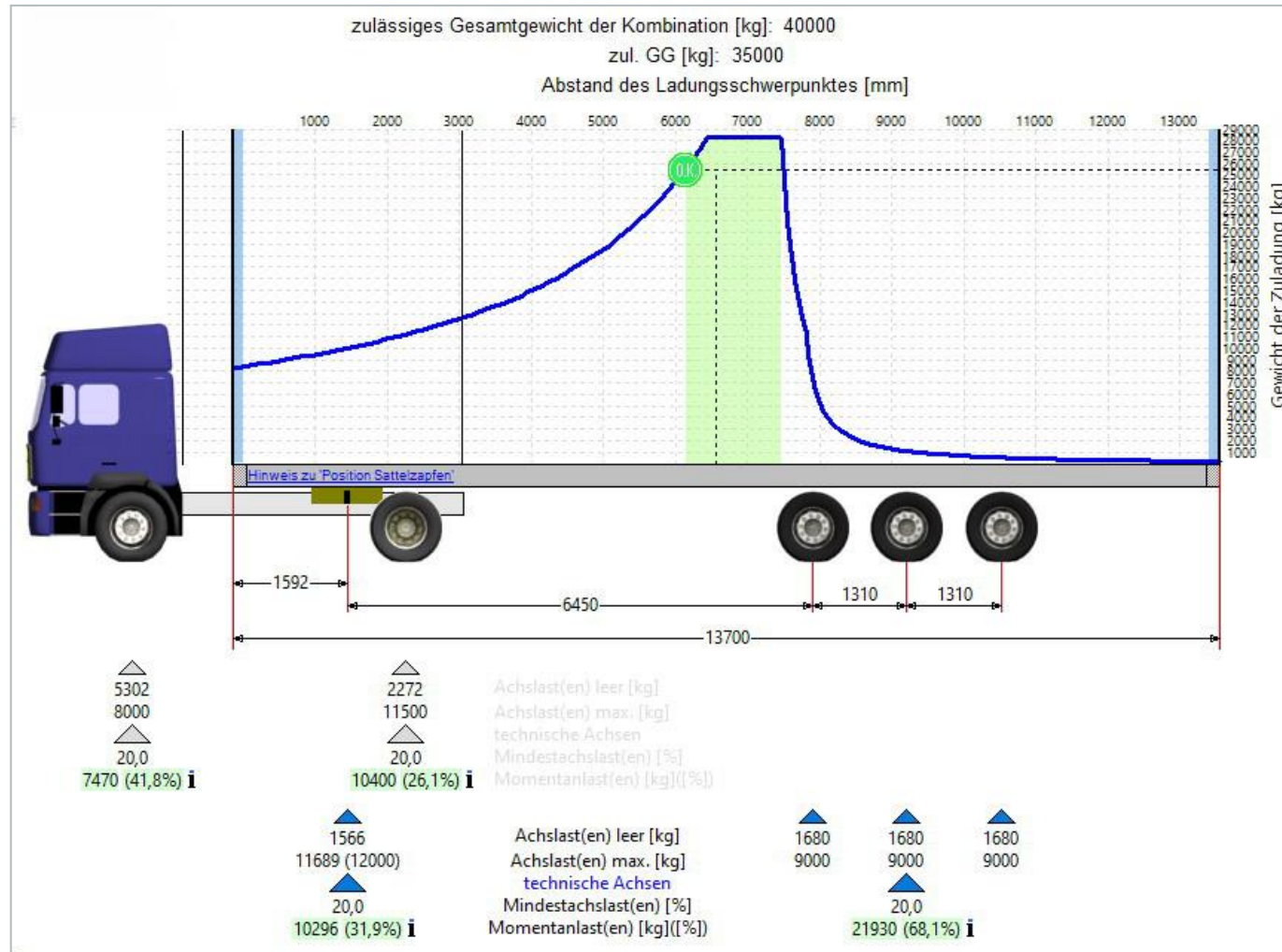
2. Loading bagged goods onto 1220-kg pallets - securing with sturdy squared timber

- **Loading area condition:** The loading area floor must be undamaged, swept clean and dry at all times (residual moisture without standing water is permitted) free of all oil, frost, ice and snow.
- **Load description:** The various bags are to be palletised, covered with a 90- μm film bonnet, then stacked to form a composite logistics unit. However, non-uniform bags may not always stack up neatly with the pallet.
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- When lashing down with lashing straps and using stable squared lumber, each lashing strap must be pre-tensioned to at least S_{TF} 300 daN.
- Initially, each lashing strap should be tensioned to S_{TF} 500 daN to ensure a sustained S_{TF} 300 daN pre-tension. For road safety, drivers must inspect the load before departure and adjust securing if needed.



2. Loading of bagged goods onto 1220-kg pallets - securing with edge protection

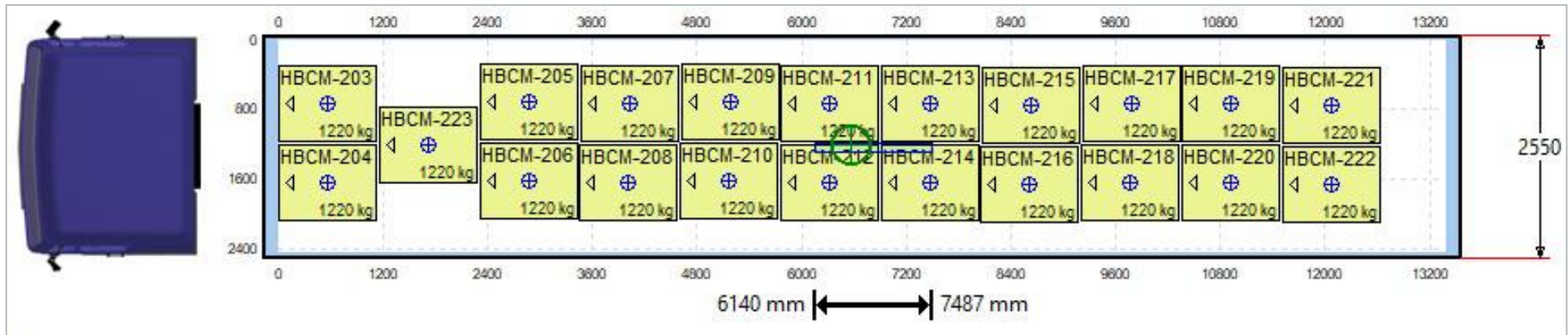
Proper load distribution plan "Bagged goods on 1220-kg pallets"



2. Loading of bagged goods onto 1220-kg pallets - securing with edge protection

Proper load distribution plan "Bagged goods on 1220-kg pallets"

Loading plan for 21 pallets



2. Loading of bagged goods onto 1220-kg pallets - securing with edge protection

Proper load distribution plan "Bagged goods on 1220-kg pallets"

Ladefläche					
Länge [mm]	Breite [mm]	nicht nutzbarer Bereich			
		vorne [mm]	hinten [mm]	links [mm]	rechts [mm]
13700	2550	150	150	50	50
Laderaumbegrenzung					
Belastbarkeit [daN]	vorne	hinten	links	rechts	
	5000	3100	0	0	

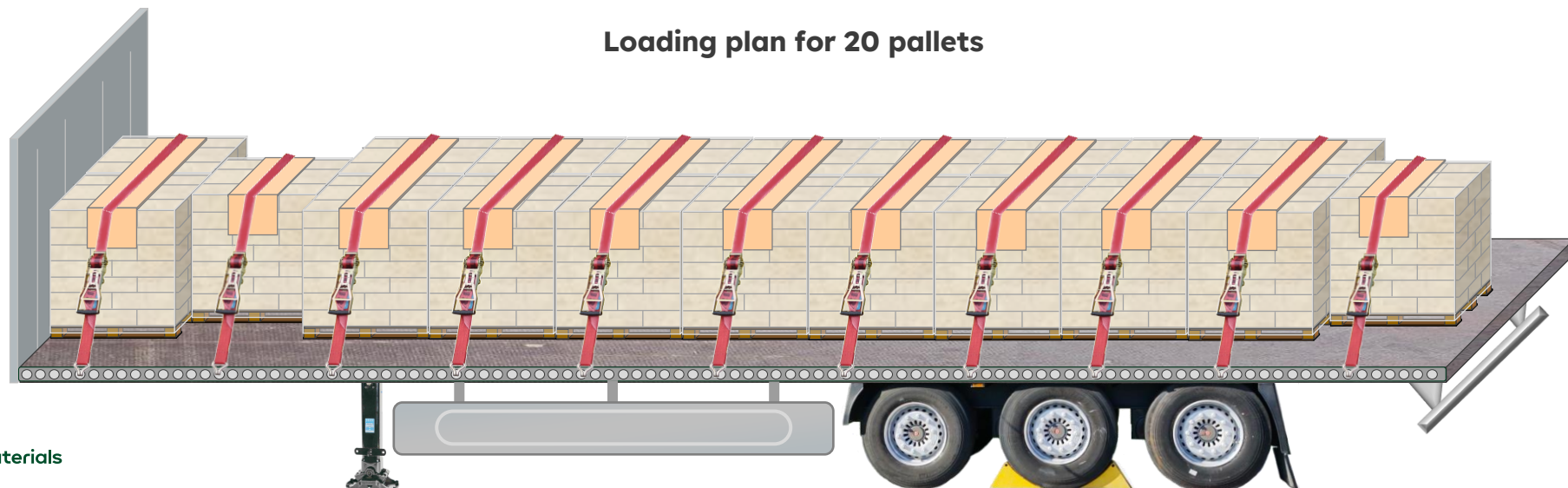
Gesamtladungsschwerpunkt bezogen auf nutzbar. Bereich der Ladefläche		
Gewicht [kg]	Abstand von vorne [mm]	Abstand von rechts [mm]
25620	6558	1200

Ladungsanordnung bez. auf nutzbar. Bereich der Ladefläche (Bezugsp. bei Ladung ist die vordere/rechte Seite)						
NR	Bezeichnung	Abstand von vorne [mm]	Abstand von rechts [mm]	Gewicht [kg]	Ausrichtung	Bemerkungen
1	HBCM-203	10	300	1220	nach vorne weisend	
2	HBCM-204	0	1210	1220	nach vorne weisend	
3	HBCM-205	2320	270	1220	nach vorne weisend	
4	HBCM-206	2310	1180	1220	nach vorne weisend	
5	HBCM-207	3470	290	1220	nach vorne weisend	
6	HBCM-208	3460	1200	1220	nach vorne weisend	
7	HBCM-209	4620	280	1220	nach vorne weisend	
8	HBCM-210	4610	1190	1220	nach vorne weisend	
9	HBCM-211	5770	300	1220	nach vorne weisend	
10	HBCM-212	5760	1210	1220	nach vorne weisend	
11	HBCM-213	6920	290	1220	nach vorne weisend	
12	HBCM-214	6910	1200	1220	nach vorne weisend	
13	HBCM-215	8070	310	1220	nach vorne weisend	
14	HBCM-216	8060	1220	1220	nach vorne weisend	
15	HBCM-217	9220	300	1220	nach vorne weisend	
16	HBCM-218	9210	1210	1220	nach vorne weisend	
17	HBCM-219	10370	290	1220	nach vorne weisend	
18	HBCM-220	10360	1200	1220	nach vorne weisend	
19	HBCM-221	11520	310	1220	nach vorne weisend	
20	HBCM-222	11510	1220	1220	nach vorne weisend	
21	HBCM-223	1160	780	1220	nach vorne weisend	



3. Loading of bagged goods onto 1220-kg pallets - securing with GWS®-LaSi-PAPP edge protection

- **Loading area condition:** The loading area floor must be undamaged, swept clean and dry at all times (residual moisture without standing water is permitted) free of all oil, frost, ice and snow.
- **Load description:** The various bags are to be palletised, covered with a 90-µm film bonnet, then stacked to form a composite logistics unit. However, the non-uniform nature of the bags mean they may not always stack up regularly with the pallet.
- **The load can be secured without anti-slip mats.** According to EN 12 195-1, the friction coefficient for sawn timber (pallet) on plywood (loading surface) is μ **0.45**. If the loading area floor is a steel loading surface, anti-slip rubber mats with a friction coefficient of μ 0.6 must be used under the load.
- Proper **load distribution** must be observed using the fifth-wheel plate and axle loads as benchmarks.
- To meet the dynamic driving test requirements of DIN EN 12642, the palletised bags should be positioned snugly against the vehicle's front bulkhead. Small gaps may be permissible between items in the direction of travel. Each stack of palletised bags must be secured with a single lashing strap and a GWS-LaSi cardboard sheet per storage space, as illustrated in the accompanying diagram. If standard securing isn't feasible, the lashing straps may also be tensioned across two rows, or crosswise in the case of palletised bags. The risk of palletised bags bursting or tearing must be eliminated.
- When securing with lashing straps and GWS-LaSi cardboard, each lashing strap must be pre-tensioned to at least S_{TF} 300 daN.
- Initially, each lashing strap should be tensioned to S_{TF} 500 daN to ensure a sustained S_{TF} 300 daN pre-tension. For road safety, drivers must inspect the load before departure and adjust securing if needed.



3. Loading of bagged goods onto 1220-kg pallets - securing with sturdy edge protectors (e.g. orange, black, etc.)

- **Loading area condition:** The loading area floor must be undamaged, swept clean and dry at all times (residual moisture without standing water is permitted) free of all oil, frost, ice and snow.
- **Load description:** The various bags are to be palletised, covered with a 90- μ m film bonnet, then stacked to form a composite logistics unit. However, the non-uniform nature of the bags mean they may not always stack up regularly with the pallet.
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- When lashing down with lashing straps and using sturdy edge protectors, each lashing strap must be pre-tensioned to at least S_{TF} 300 daN.
- Initially, each lashing strap should be tensioned to S_{TF} 500 daN to ensure a sustained S_{TF} 300 daN pre-tension. For road safety, drivers must inspect the load before departure and adjust securing if needed.



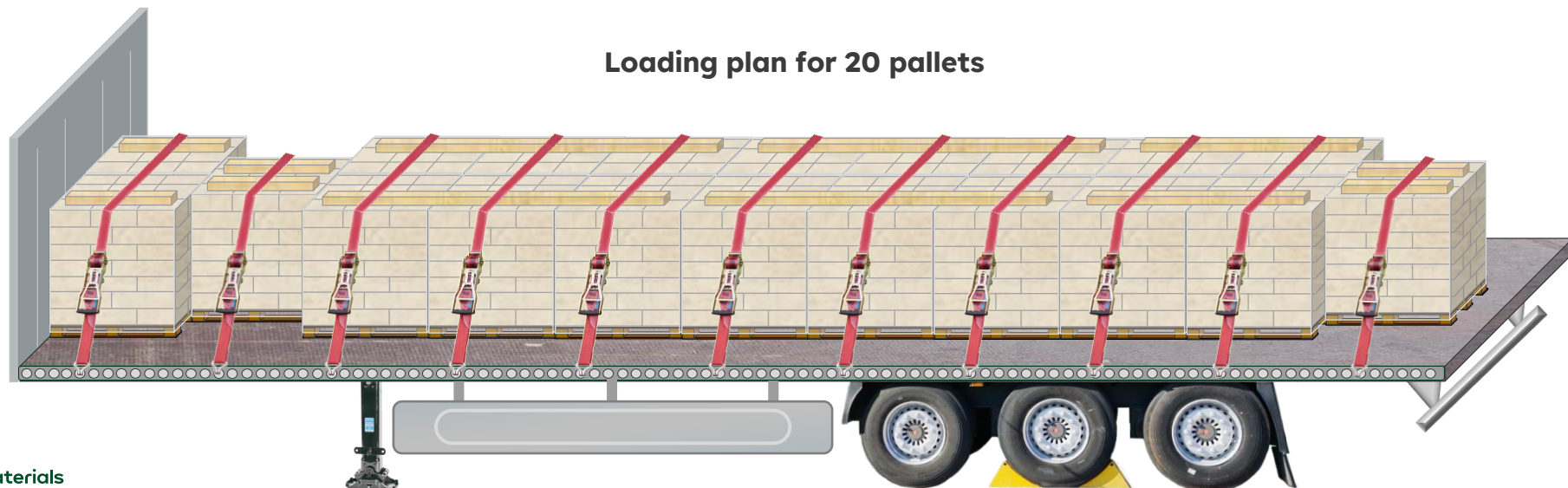
3. Loading of bagged goods onto 1220-kg pallets - securing with stable wooden or aluminium insert boards

- **Loading area condition:** The loading area floor must be undamaged, swept clean and dry at all times (residual moisture without standing water is permitted) free of all oil, frost, ice and snow.
- **Load description:** The various bags are to be palletised, covered with a 90-µm film bonnet, then stacked to form a composite logistics unit. However, non-uniform bags may not always stack up neatly with the pallet.
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- When lashing down with lashing straps and using sturdy wooden or aluminium insert boards, each lashing strap must be pre-tensioned to at least S_{TF} 300 daN.
- Initially, each lashing strap should be tensioned to S_{TF} 500 daN to ensure a sustained S_{TF} 300 daN pre-tension. For road safety, drivers must inspect the load before departure and adjust securing if needed.



3. Loading bagged goods onto 1220-kg pallets - securing with sturdy squared timber

- **Loading area condition:** The loading area floor must be undamaged, swept clean and dry at all times (residual moisture without standing water is permitted) free of all oil, frost, ice and snow.
- **Load description:** The various bags are to be palletised, covered with a 90- μm film bonnet, then stacked to form a composite logistics unit. However, non-uniform bags may not always stack up neatly with the pallet.
- **The load can be secured without anti-slip mats.** According to EN 12 195-1, the friction coefficient for sawn timber (pallet) on plywood (loading surface) is μ **0.45**. If the loading area floor is a steel loading surface, anti-slip rubber mats with a friction coefficient of μ 0.6 must be used under the load.
- Proper **load distribution** must be observed using the fifth-wheel plate and axle loads as benchmarks.
- To meet the dynamic driving test requirements of DIN EN 12642, the palletised bags should be positioned snugly against the vehicle's front bulkhead. Small gaps may be permissible between items in the direction of travel. The palletised bags must be secured with a lashing strap and sturdy squared timbers as illustrated in the accompanying diagram. If standard securing isn't feasible, the lashing straps may also be tensioned across two rows of racks, crosswise in the case of palletised bags. The risk of palletised bags bursting or tearing must be eliminated.
- When lashing down with lashing straps and using stable squared lumber, each lashing strap must be pre-tensioned to at least S_{TF} 300 daN.
- Initially, each lashing strap should be tensioned to S_{TF} 500 daN to ensure a sustained S_{TF} 300 daN pre-tension. For road safety, drivers must inspect the load before departure and adjust securing if needed.



3. Loading of bagged goods onto 1220-kg pallets - securing with edge protection

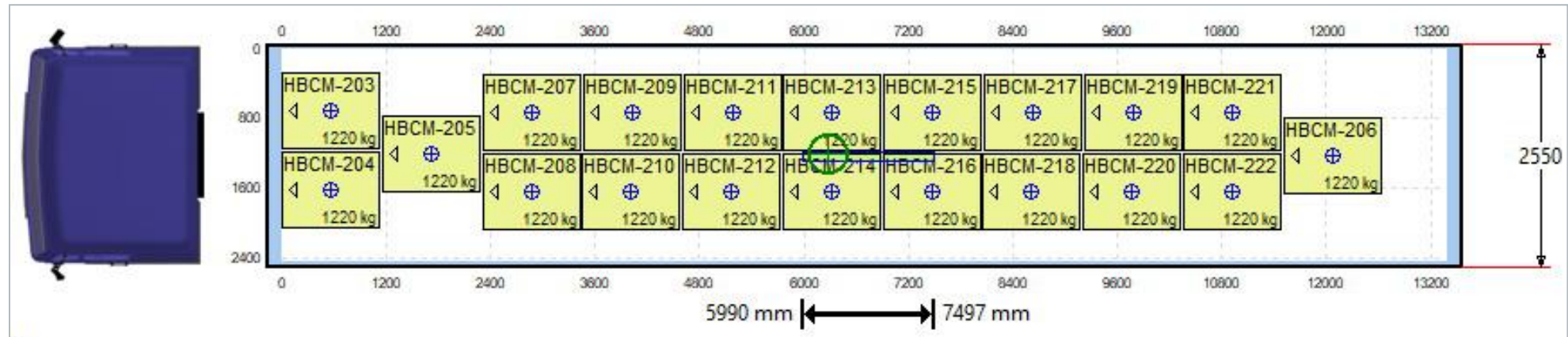
Proper load distribution plan "Bagged goods on 1220-kg pallets"



3. Loading of bagged goods onto 1220-kg pallets - securing with edge protection

Proper load distribution plan "Bagged goods on 1220-kg pallets"

Loading plan for 20 pallets



3. Loading of bagged goods onto 1220-kg pallets - securing with edge protection

Proper load distribution plan "Bagged goods on 1220-kg pallets"

Ladefläche					
Länge [mm]	Breite [mm]	nicht nutzbarer Bereich			
		vorne [mm]	hinten [mm]	links [mm]	rechts [mm]
13700	2550	150	150	50	50
Laderaumbegrenzung					
Belastbarkeit	vorne	hinten	links	rechts	
[daN]	5000	3100	0	0	

Gesamtladungsschwerpunkt bezogen auf nutzbb. Bereich der Ladefläche		
Gewicht [kg]	Abstand von vorne [mm]	Abstand von rechts [mm]
24400	6282	1200

Ladungsanordnung bez. auf nutzbb. Bereich der Ladefläche (Bezugsp. bei Ladung ist die vordere/rechte Seite)						
NR	Bezeichnung	Abstand von vorne [mm]	Abstand von rechts [mm]	Gewicht [kg]	Ausrichtung	Bemerkungen
1	HBCM-203	10	280	1220	nach vorne weisend	
2	HBCM-204	0	1190	1220	nach vorne weisend	
3	HBCM-205	1160	780	1220	nach vorne weisend	
4	HBCM-206	11520	800	1220	nach vorne weisend	
5	HBCM-207	2320	290	1220	nach vorne weisend	
6	HBCM-208	2310	1200	1220	nach vorne weisend	
7	HBCM-209	3470	290	1220	nach vorne weisend	
8	HBCM-210	3460	1200	1220	nach vorne weisend	
9	HBCM-211	4620	300	1220	nach vorne weisend	
10	HBCM-212	4610	1210	1220	nach vorne weisend	
11	HBCM-213	5770	290	1220	nach vorne weisend	
12	HBCM-214	5760	1200	1220	nach vorne weisend	
13	HBCM-215	6920	290	1220	nach vorne weisend	
14	HBCM-216	6910	1200	1220	nach vorne weisend	
15	HBCM-217	8070	300	1220	nach vorne weisend	
16	HBCM-218	8060	1210	1220	nach vorne weisend	
17	HBCM-219	9220	290	1220	nach vorne weisend	
18	HBCM-220	9210	1200	1220	nach vorne weisend	
19	HBCM-221	10370	290	1220	nach vorne weisend	
20	HBCM-222	10360	1200	1220	nach vorne weisend	



4. Loading of bagged goods onto 1420-kg pallets - securing with edge protection GWS®-LaSi-PAPP

- **Loading area condition:** The loading area floor must be undamaged, swept clean and dry at all times (residual moisture without standing water is permitted) free of all oil, frost, ice and snow.
- **Load description:** The various bags are to be palletised, covered with a 90-µm film bonnet, then stacked to form a composite logistics unit. However, non-uniform bags may not always stack up neatly with the pallet.
- **The load can be secured without anti-slip mats.** According to EN 12 195-1, the friction coefficient for sawn timber (pallet) on plywood (loading surface) is μ **0.45**. If the loading area floor is a steel loading surface, anti-slip rubber mats with a friction coefficient of μ 0.6 must be used under the load.
- Proper **load distribution** must be observed using the fifth-wheel plate and axle loads as benchmarks.
- To meet the dynamic driving test requirements of DIN EN 12642, the palletised bags should be positioned snugly against the vehicle's front bulkhead. Small gaps may be permissible between items in the direction of travel. Each stack of palletised bags must be secured with a single lashing strap and a GWS-LaSi cardboard sheet per storage space, as illustrated in the accompanying diagram. If standard securing isn't feasible, the lashing straps may also be tensioned across two rows, or crosswise in the case of palletised bags. The risk of palletised bags bursting or tearing must be eliminated.
- When securing with lashing straps and GWS-LaSi cardboard, each lashing strap must be pre-tensioned to at least S_{TF} 300 daN.
- Initially, each lashing strap should be tensioned to S_{TF} 500 daN to ensure a sustained S_{TF} 300 daN pre-tension. For road safety, drivers must inspect the load before departure and adjust securing if needed.



4. Loading of bagged goods on 1420-kg pallets - securing with sturdy edge protectors (e.g. orange, black, etc.)

- **Loading area condition:** The loading area floor must be undamaged, swept clean and dry at all times (residual moisture without standing water is permitted) free of all oil, frost, ice and snow.
- **Load description:** The various bags are to be palletised, covered with a 90- μ m film bonnet, then stacked to form a composite logistics unit. However, non-uniform bags may not always stack up neatly with the pallet.
- **The load can be secured without anti-slip mats.** According to EN 12 195-1, the friction coefficient for sawn timber (pallet) on plywood (loading surface) is μ **0.45**. If the loading area floor is a steel loading surface, anti-slip rubber mats with a friction coefficient of μ 0.6 must be used under the load.
- Proper load distribution must be observed using the fifth-wheel plate and axle loads as benchmarks.
- To meet the dynamic driving test requirements of DIN EN 12642, the palletised bags should be positioned snugly against the vehicle's front bulkhead. Small gaps may be permissible between items in the direction of travel. The palletised bags must be secured with a lashing strap and sturdy edge protectors as illustrated in the accompanying diagram. If standard securing isn't feasible, the lashing straps may also be tensioned across two rows, or crosswise in the case of palletised bags. The risk of palletised bags bursting or tearing must be eliminated.
- When lashing down with lashing straps and using sturdy edge protectors, each lashing strap must be pre-tensioned to at least S_{TF} 300 daN.
- Initially, each lashing strap should be tensioned to S_{TF} 500 daN to ensure a sustained S_{TF} 300 daN pre-tension. For road safety, drivers must inspect the load before departure and adjust securing if needed.



4. Loading of bagged goods on 1420-kg pallets - securing with stable wooden or aluminium insert boards

- **Loading area condition:** The loading area floor must be undamaged, swept clean and dry at all times (residual moisture without standing water is permitted) free of all oil, frost, ice and snow.
- **Load description:** The various bags are to be palletised, covered with a 90- μm film bonnet, then stacked to form a composite logistics unit. However, non-uniform bags may not always stack up neatly with the pallet.
- **The load can be secured without anti-slip mats.** According to EN 12 195-1, the friction coefficient for sawn timber (pallet) on plywood (loading surface) is μ **0.45**. If the loading area floor is a steel loading surface, anti-slip rubber mats with a friction coefficient of μ 0.6 must be used under the load.
- Proper load distribution must be observed using the fifth-wheel plate and axle loads as benchmarks.
- To meet the dynamic driving test requirements of DIN EN 12642, the palletised bags should be positioned snugly against the vehicle's front bulkhead. Small gaps may be permissible between items in the direction of travel. The palletised bags must be secured with a lashing strap and sturdy wooden boards as illustrated in the accompanying diagram. If standard securing isn't feasible, the lashing straps may also be tensioned across two rows of racks, or crosswise in the case of palletised bags. The risk of palletised bags bursting or tearing must be eliminated.
- When lashing down with lashing straps and using sturdy wooden or aluminium insert boards, each lashing strap must be pre-tensioned to at least S_{TF} 300 daN.
- Initially, each lashing strap should be tensioned to S_{TF} 500 daN to ensure a sustained S_{TF} 300 daN pre-tension. For road safety, drivers must inspect the load before departure and adjust securing if needed.



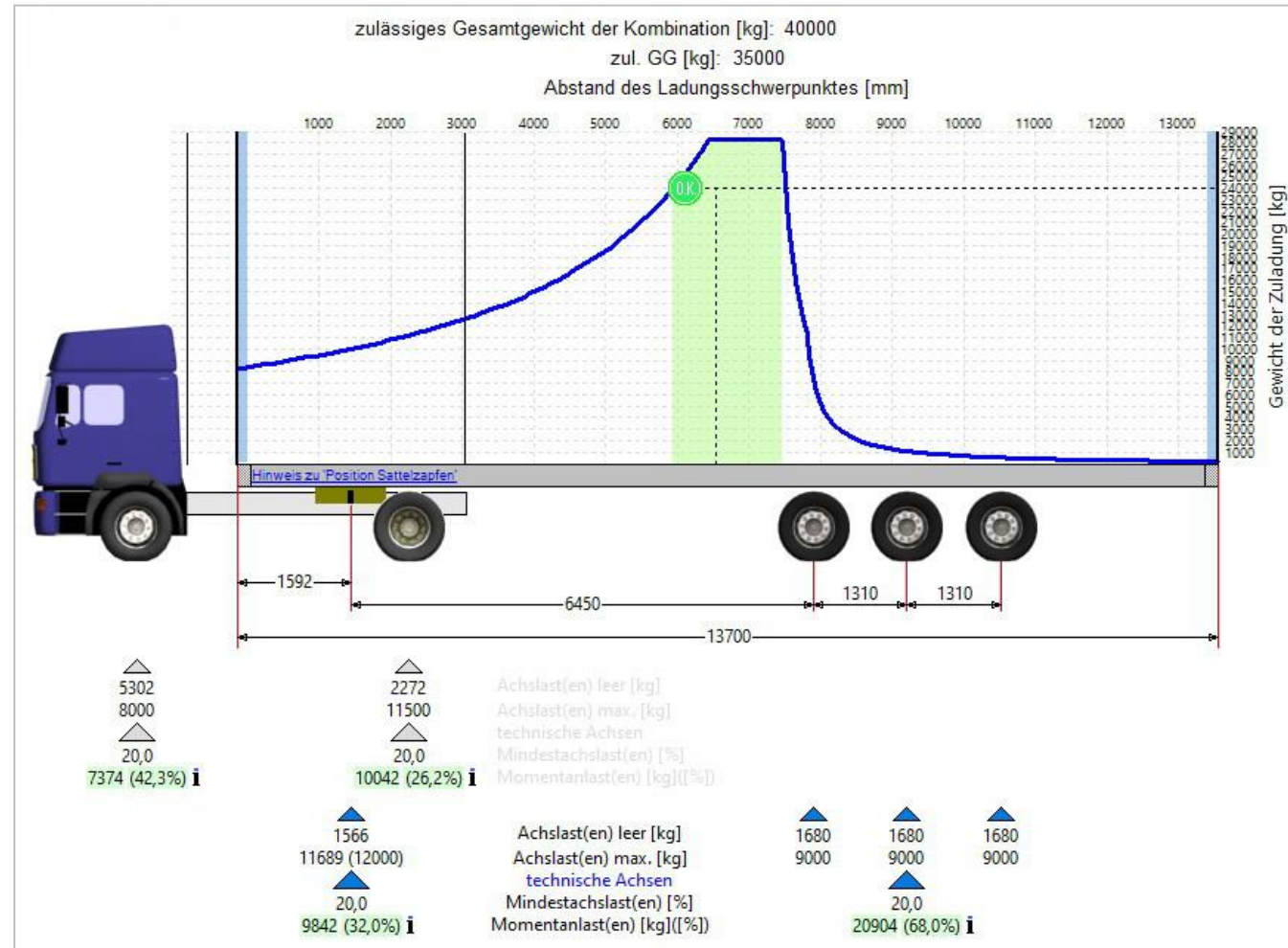
4. Loading bagged goods onto 1420-kg pallets - securing with stable squared timber

- **Loading area condition:** The loading area floor must be undamaged, swept clean and dry at all times (residual moisture without standing water is permitted) free of all oil, frost, ice and snow.
- **Load description:** The various bags are to be palletised, covered with a 90-µm film bonnet, then stacked to form a composite logistics unit. However, non-uniform bags may not always stack up neatly with the pallet.
- **The load can be secured without anti-slip mats.** According to EN 12 195-1, the friction coefficient for sawn timber (pallet) on plywood (loading surface) is μ **0.45**. If the loading area floor is a steel loading surface, anti-slip rubber mats with a friction coefficient of μ 0.6 must be used under the load.
- Proper load distribution must be observed using the fifth-wheel plate and axle loads as benchmarks.
- To meet the dynamic driving test requirements of DIN EN 12642, the palletised bags should be positioned snugly against the vehicle's front bulkhead. Small gaps may be permissible between items in the direction of travel. The palletised bags must be secured with a lashing strap and sturdy squared timbers as illustrated in the accompanying diagram. If standard securing isn't feasible, the lashing straps may also be tensioned across two rows of racks, crosswise in the case of palletised bags. The risk of palletised bags bursting or tearing must be eliminated.
- When lashing down with lashing straps and using stable squared lumber, each lashing strap must be pre-tensioned to at least S_{TF} 300 daN.
- Initially, each lashing strap should be tensioned to S_{TF} 500 daN to ensure a sustained S_{TF} 300 daN pre-tension. For road safety, drivers must inspect the load before departure and adjust securing if needed.



4. Loading of bagged goods onto 1420-kg pallets - securing with edge protection

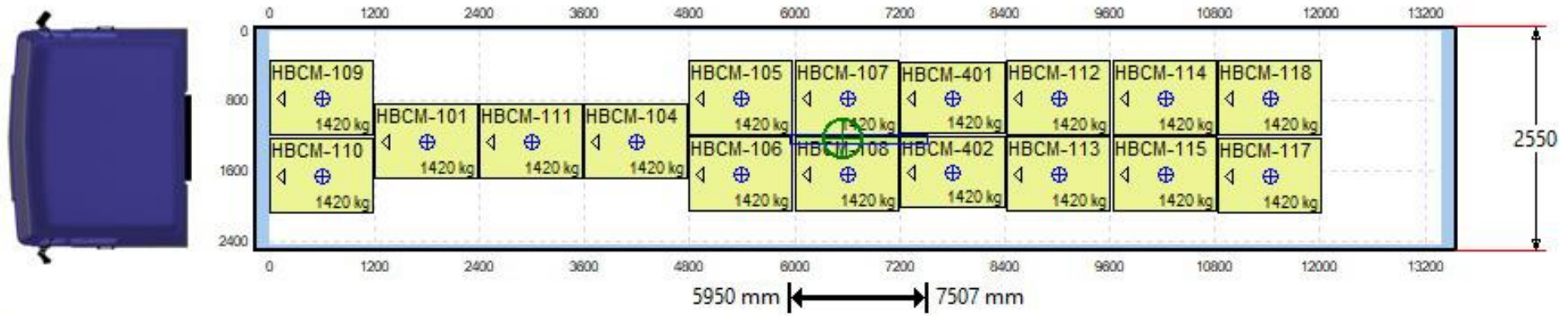
Proper load distribution plan "Bagged goods on 1420-kg pallets"



4. Loading of bagged goods on 1420-kg pallets - securing with edge protection

Proper load distribution plan "Bagged goods on 1420-kg pallets"

Loading plan for 17 pallets



4. Loading of bagged goods on 1420-kg pallets - securing with edge protection

Proper load distribution plan "Bagged goods on 1420-kg pallets"

Ladefläche					
Länge [mm]	Breite [mm]	nicht nutzbarer Bereich			
		vorne [mm]	hinten [mm]	links [mm]	rechts [mm]
13700	2550	150	150	50	50
Laderaumbegrenzung					
Belastbarkeit [daN]	vorne	hinten	links	rechts	
	5000	3100	0	0	

Gesamtladungsschwerpunkt bezogen auf nutzbb. Bereich der Ladefläche		
Gewicht [kg]	Abstand von vorne [mm]	Abstand von rechts [mm]
24140	6542	1224

Ladungsanordnung bez. auf nutzbb. Bereich der Ladefläche (Bezugsp. bei Ladung ist die vordere/rechte Seite)						
NR	Bezeichnung	Abstand von vorne [mm]	Abstand von rechts [mm]	Gewicht [kg]	Ausrichtung	Bemerkungen
1	HBCM-101	1200	830	1420	nach vorne weisend	
2	HBCM-104	3600	840	1420	nach vorne weisend	
3	HBCM-105	4800	330	1420	nach vorne weisend	
4	HBCM-106	4800	1210	1420	nach vorne weisend	
5	HBCM-107	6000	330	1420	nach vorne weisend	
6	HBCM-108	6000	1210	1420	nach vorne weisend	
7	HBCM-109	0	340	1420	nach vorne weisend	
8	HBCM-110	0	1220	1420	nach vorne weisend	
9	HBCM-111	2400	830	1420	nach vorne weisend	
10	HBCM-112	8430	330	1420	nach vorne weisend	
11	HBCM-113	8430	1210	1420	nach vorne weisend	
12	HBCM-114	9630	330	1420	nach vorne weisend	
13	HBCM-115	9630	1210	1420	nach vorne weisend	
14	HBCM-117	10830	1220	1420	nach vorne weisend	
15	HBCM-118	10830	340	1420	nach vorne weisend	
16	HBCM-401	7210	370	1420	nach vorne weisend	
17	HBCM-402	7200	1210	1420	nach vorne weisend	



5. Loading of bagged goods onto 1420-kg pallets - securing with edge protection GWS®-LaSi-PAPP

- **Loading area condition:** The loading area floor must be undamaged, swept clean and dry at all times (residual moisture without standing water is permitted) free of all oil, frost, ice and snow.
- **Load description:** The various bags are to be palletised, covered with a 90-µm film bonnet, then stacked to form a composite logistics unit. However, non-uniform bags may not always stack up neatly with the pallet.
- **The load can be secured without anti-slip mats.** According to EN 12 195-1, the friction coefficient for sawn timber (pallet) on plywood (loading surface) is μ **0.45**. If the loading area floor is a steel loading surface, anti-slip rubber mats with a friction coefficient of μ 0.6 must be used under the load.
- Proper load distribution must be observed using the fifth-wheel plate and axle loads as benchmarks.
- To meet the dynamic driving test requirements of DIN EN 12642, the palletised bags should be positioned snugly against the vehicle's front bulkhead. Small gaps may be permissible between items in the direction of travel. Each stack of palletised bags must be secured with a single lashing strap and a GWS-LaSi cardboard sheet per storage space, as illustrated in the accompanying diagram. If standard securing isn't feasible, the lashing straps may also be tensioned across two rows, or crosswise in the case of palletised bags. The risk of palletised bags bursting or tearing must be eliminated.
- When securing with lashing straps and GWS-LaSi cardboard, each lashing strap must be pre-tensioned to at least S_{TF} 300 daN.
- Initially, each lashing strap should be tensioned to S_{TF} 500 daN to ensure a sustained S_{TF} 300 daN pre-tension. For road safety, drivers must inspect the load before departure and adjust securing if needed.



5. Loading of bagged goods on 1420-kg pallets - securing with sturdy edge protectors (e.g. orange, black, etc.)

- **Loading area condition:** The loading area floor must be undamaged, swept clean and dry at all times (residual moisture without standing water is permitted) free of all oil, frost, ice and snow.
- **Load description:** The various bags are to be palletised, covered with a 90- μ m film bonnet, then stacked to form a composite logistics unit. However, non-uniform bags may not always stack up neatly with the pallet.
- **The load can be secured without anti-slip mats.** According to EN 12 195-1, the friction coefficient for sawn timber (pallet) on plywood (loading surface) is μ **0.45**. If the loading area floor is a steel loading surface, anti-slip rubber mats with a friction coefficient of μ 0.6 must be used under the load.
- Proper load distribution must be observed using the fifth-wheel plate and axle loads as benchmarks.
- To meet the dynamic driving test requirements of DIN EN 12642, the palletised bags should be positioned snugly against the vehicle's front bulkhead. Small gaps may be permissible between items in the direction of travel. The palletised bags must be secured with a lashing strap and sturdy edge protectors as illustrated in the accompanying diagram. If standard securing isn't feasible, the lashing straps may also be tensioned across two rows, or crosswise in the case of palletised bags. The risk of palletised bags bursting or tearing must be eliminated.
- When lashing down with lashing straps and using sturdy edge protectors, each lashing strap must be pre-tensioned to at least S_{TF} 300 daN.
- Initially, each lashing strap should be tensioned to S_{TF} 500 daN to ensure a sustained S_{TF} 300 daN pre-tension. For road safety, drivers must inspect the load before departure and adjust securing if needed.



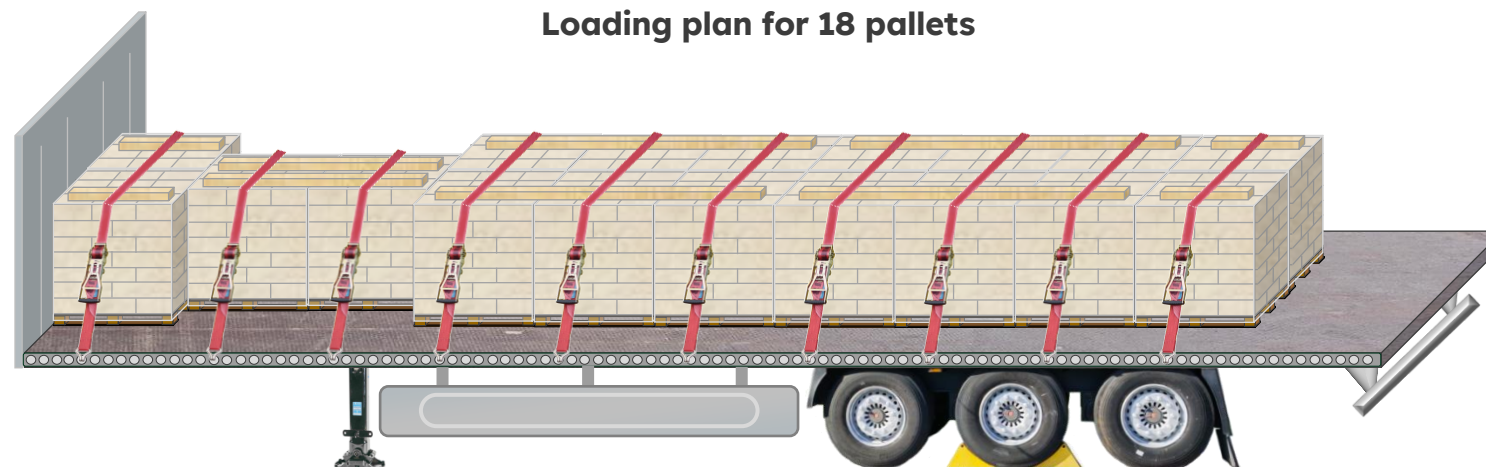
5. Loading of bagged goods on 1420-kg pallets - securing with stable wooden or aluminium insert boards

- **Loading area condition:** The loading area floor must be undamaged, swept clean and dry at all times (residual moisture without standing water is permitted) free of all oil, frost, ice and snow.
- **Load description:** The various bags are to be palletised, covered with a 90- μ m film bonnet, then stacked to form a composite logistics unit. However, the non-uniform nature of the bags mean they may not always stack up regularly with the pallet.
- **The load can be secured without anti-slip mats.** According to EN 12 195-1, the friction coefficient for sawn timber (pallet) on plywood (loading surface) is μ **0.45**. If the loading area floor is a steel loading surface, anti-slip rubber mats with a friction coefficient of μ 0.6 must be used under the load.
- Proper load distribution must be observed using the fifth-wheel plate and axle loads as benchmarks.
- To meet the dynamic driving test requirements of DIN EN 12642, the palletised bags should be positioned snugly against the vehicle's front bulkhead. Small gaps may be permissible between items in the direction of travel. The palletised bags must be secured with a lashing strap and sturdy wooden boards as illustrated in the accompanying diagram. If standard securing isn't feasible, the lashing straps may also be tensioned across two rows of racks, crosswise in the case of palletised bags. The risk of palletised bags bursting or tearing must be eliminated.
- When lashing down with lashing straps and using sturdy wooden or aluminium insert boards, each lashing strap must be pre-tensioned to at least S_{TF} 300 daN.
- Initially, each lashing strap should be tensioned to S_{TF} 500 daN to ensure a sustained S_{TF} 300 daN pre-tension. For road safety, drivers must inspect the load before departure and adjust securing if needed.



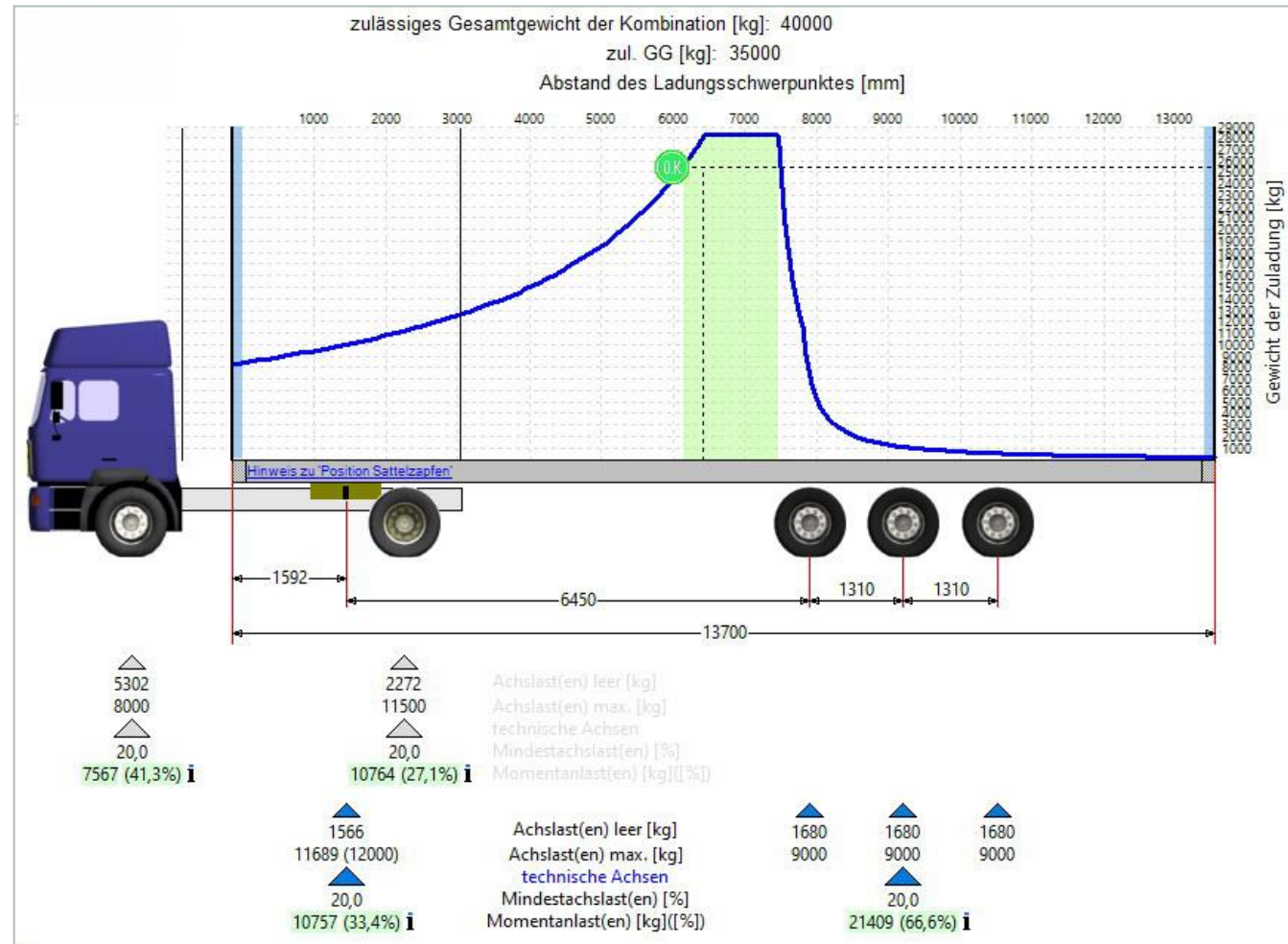
5. Loading bagged goods onto a 1420-kg pallets - securing with stable squared timber

- **Loading area condition:** The loading area floor must be undamaged, swept clean and dry at all times (residual moisture without standing water is permitted) free of all oil, frost, ice and snow.
- **Load description:** The various bags are to be palletised, covered with a 90- μ m film bonnet, then stacked to form a composite logistics unit. However, the non-uniform nature of the bags mean they may not always stack up regularly with the pallet.
- **The load can be secured without anti-slip mats.** According to EN 12 195-1, the friction coefficient for sawn timber (pallet) on plywood (loading surface) is μ **0.45**. If the loading area floor is a steel loading surface, anti-slip rubber mats with a friction coefficient of μ 0.6 must be used under the load.
- Proper load distribution must be observed using the fifth-wheel plate and axle loads as benchmarks.
- To meet the dynamic driving test requirements of DIN EN 12642, the palletised bags should be positioned snugly against the vehicle's front bulkhead. Small gaps may be permissible between items in the direction of travel. The palletised bags must be secured with a lashing strap and sturdy squared timbers as illustrated in the accompanying diagram. If standard securing isn't feasible, the lashing straps may also be tensioned across two rows of racks, crosswise in the case of palletised bags. The risk of palletised bags bursting or tearing must be eliminated.
- When lashing down with lashing straps and using stable squared lumber, each lashing strap must be pre-tensioned to at least S_{TF} 300 daN.
- Initially, each lashing strap should be tensioned to S_{TF} 500 daN to ensure a sustained S_{TF} 300 daN pre-tension. For road safety, drivers must inspect the load before departure and adjust securing if needed.



5. Loading of bagged goods on 1420-kg pallets - securing with edge protection

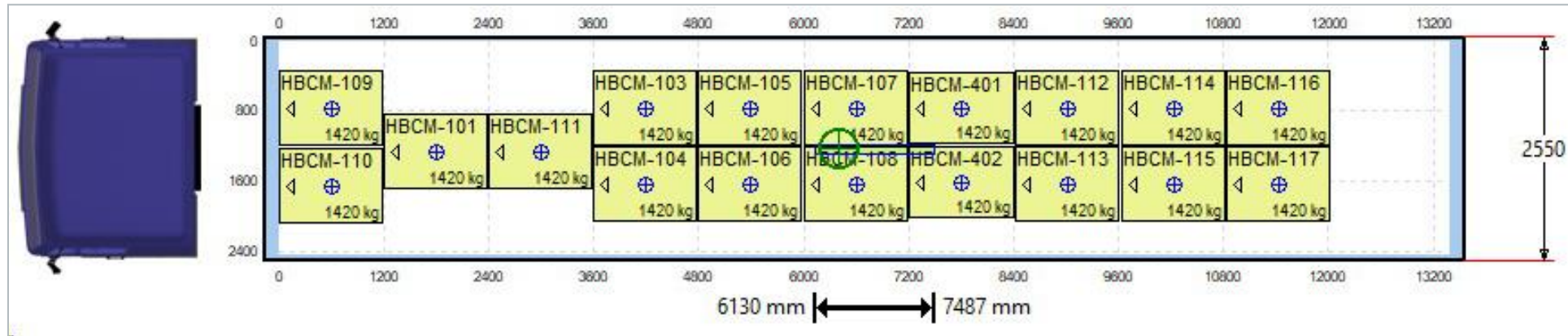
Proper load distribution plan "Bagged goods on 1420-kg pallets"



5. Loading of bagged goods on 1420-kg pallets - securing with edge protection

Proper load distribution plan "Bagged goods on 1420-kg pallets"

Loading plan for 18 pallets



5. Loading of bagged goods on 1420-kg pallets - securing with edge protection

Proper load distribution plan "Bagged goods on 1420-kg pallets"

Ladefläche					
Länge [mm]	Breite [mm]	nicht nutzbarer Bereich			
		vorne [mm]	hinten [mm]	links [mm]	rechts [mm]
13700	2550	150	150	50	50
Laderaumbegrenzung					
Belastbarkeit [daN]	vorne	hinten	links	rechts	
	5000	3100	0	0	

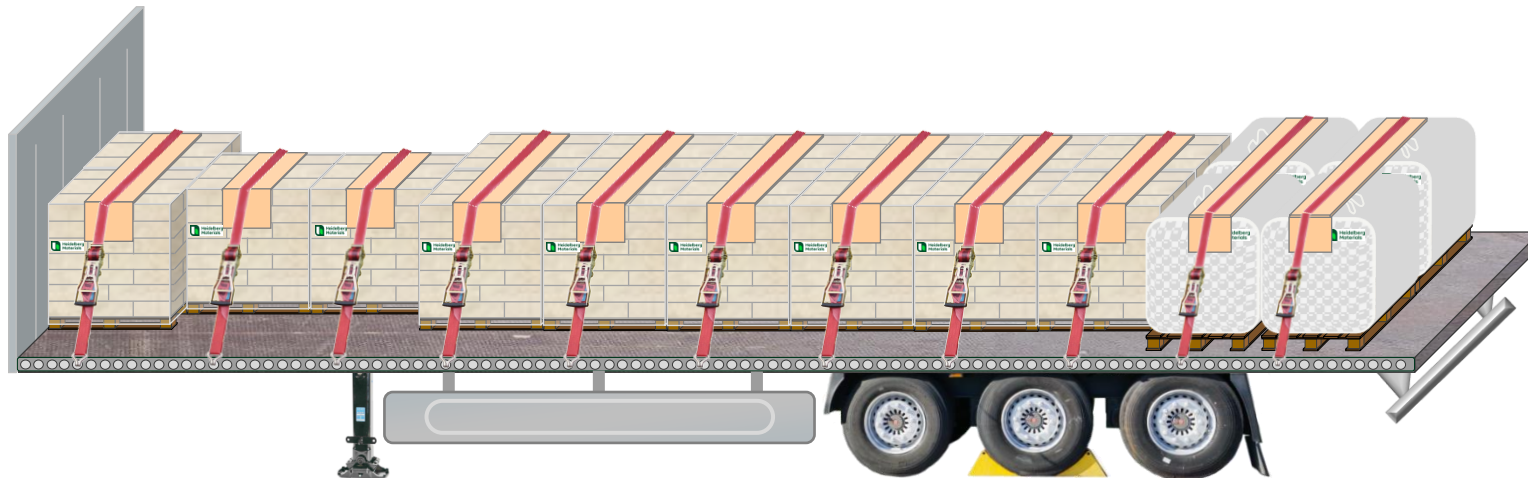
Gesamtladungsschwerpunkt bezogen auf nutzbar. Bereich der Ladefläche		
Gewicht [kg]	Abstand von vorne [mm]	Abstand von rechts [mm]
25560	6412	1218

Ladungsanordnung bez. auf nutzbar. Bereich der Ladefläche (Bezugsp. bei Ladung ist die vordere/rechte Seite)						
NR	Bezeichnung	Abstand von vorne [mm]	Abstand von rechts [mm]	Gewicht [kg]	Ausrichtung	Bemerkungen
1	HBCM-101	1200	830	1420	nach vorne weisend	
2	HBCM-103	3600	330	1420	nach vorne weisend	
3	HBCM-104	3600	1210	1420	nach vorne weisend	
4	HBCM-105	4800	330	1420	nach vorne weisend	
5	HBCM-106	4800	1210	1420	nach vorne weisend	
6	HBCM-107	6000	330	1420	nach vorne weisend	
7	HBCM-108	6000	1210	1420	nach vorne weisend	
8	HBCM-109	0	340	1420	nach vorne weisend	
9	HBCM-110	0	1220	1420	nach vorne weisend	
10	HBCM-111	2400	830	1420	nach vorne weisend	
11	HBCM-112	8430	330	1420	nach vorne weisend	
12	HBCM-113	8430	1210	1420	nach vorne weisend	
13	HBCM-114	9630	330	1420	nach vorne weisend	
14	HBCM-115	9630	1210	1420	nach vorne weisend	
15	HBCM-116	10830	330	1420	nach vorne weisend	
16	HBCM-117	10830	1210	1420	nach vorne weisend	
17	HBCM-401	7210	370	1420	nach vorne weisend	
18	HBCM-402	7200	1210	1420	nach vorne weisend	



6. Loading of mixed bagged goods and big bags on pallets weighing 1030 to 1420 kg - securing with GWS®-LaSi-PAPP edge protection

- **Loading area condition:** The loading area floor must be undamaged, swept clean and dry at all times (residual moisture without standing water is permitted) free of all oil, frost, ice and snow.
- **Load description:** Palletised big bags and various palletised sacks, whereby the sacks are covered with a 90-µm film bonnet and stacked together as a logistics unit. However, non-uniform bags may not always stack up neatly with the pallet.
- **The load can be secured without anti-slip mats.** According to EN 12 195-1, the friction coefficient for sawn timber (pallet) on plywood (loading surface) is μ **0.45**. If the loading area floor is a steel loading surface, anti-slip rubber mats with a friction coefficient of μ 0.6 must be used under the load.
- Proper load distribution must be observed using the fifth-wheel plate and axle loads as benchmarks.
- Due to different dynamic driving test variants in accordance with DIN EN 12 642, the palletised sacks and big bags should be positioned snugly against the front bulkhead. Small gaps may be permissible between items in the direction of travel. The palletised sacks and big bags must be secured with a lashing strap and GWS-LaSi cardboard as illustrated in the accompanying diagram. If standard securing isn't feasible, the lashing straps may also be tensioned across two rows, or crosswise in the case of palletised sacks and big bags. The risk of palletised bags or big bags bursting or tearing must be eliminated.
- When securing with lashing straps and GWS-LaSi cardboard, each lashing strap must be pre-tensioned to at least S_{TF} 300 daN.
- Initially, each lashing strap should be tensioned to S_{TF} 500 daN to ensure a sustained S_{TF} 300 daN pre-tension. For road safety, drivers must inspect the load before departure and adjust securing if needed.



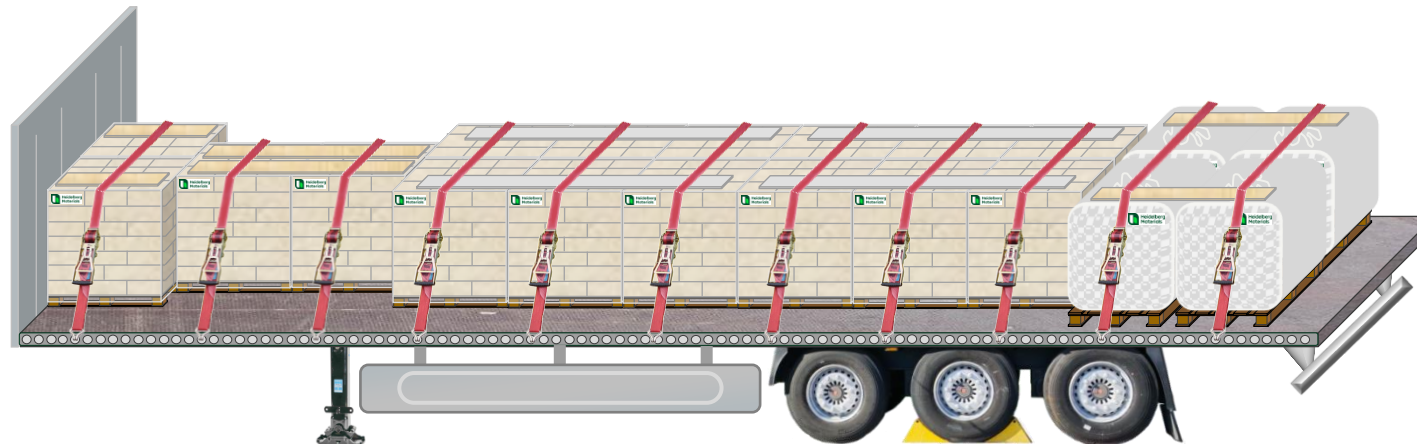
6. Loading of mixed bagged goods and big bags on pallets weighing 1030 to 1420 kg - securing with sturdy edge protectors (e.g. orange, black, etc.)

- **Loading area condition:** The loading area floor must be undamaged, swept clean and dry at all times (residual moisture without standing water is permitted) free of all oil, frost, ice and snow.
- **Load description:** Palletised big bags and various palletised sacks, whereby the sacks are covered with a 90-µm film bonnet and stacked together as a logistics unit. However, non-uniform bags may not always stack up neatly with the pallet.
- **The load can be secured without anti-slip mats.** According to EN 12 195-1, the friction coefficient for sawn timber (pallet) on plywood (loading surface) is μ **0.45**. If the loading area floor is a steel loading surface, anti-slip rubber mats with a friction coefficient of μ 0.6 must be used under the load.
- Proper load distribution must be observed using the fifth-wheel plate and axle loads as benchmarks.
- Due to different dynamic driving test variants in accordance with DIN EN 12 642, the palletised sacks and big bags should be positioned snugly against the front bulkhead. Small gaps may be permissible between items in the direction of travel. The palletised sacks and big bags must be secured with a lashing strap and sturdy edge protectors as illustrated in the accompanying diagram. If standard securing isn't feasible, the lashing straps may also be tensioned across two rows, or crosswise in the case of palletised sacks and big bags. The risk of palletised bags or big bags bursting or tearing must be eliminated.
- When lashing down with lashing straps and using sturdy edge protectors, each lashing strap must be pre-tensioned to at least S_{TF} 300 daN.
- Initially, each lashing strap should be tensioned to S_{TF} 500 daN to ensure a sustained S_{TF} 300 daN pre-tension. For road safety, drivers must inspect the load before departure and adjust securing if needed.



6. Loading of mixed bagged goods and big bags on pallets weighing 1030 to 1420 kg - securing with stable wooden or aluminium insert boards

- **Loading area condition:** The loading area floor must be undamaged, swept clean and dry at all times (residual moisture without standing water is permitted) free of all oil, frost, ice and snow.
- **Load description:** Palletised big bags and various palletised sacks, whereby the sacks are covered with a 90-µm film bonnet and stacked together as a logistics unit. However, non-uniform bags may not always stack up neatly with the pallet.
- **The load can be secured without anti-slip mats.** According to EN 12 195-1, the friction coefficient for sawn timber (pallet) on plywood (loading surface) is μ **0.45**. If the loading area floor is a steel loading surface, anti-slip rubber mats with a friction coefficient of μ 0.6 must be used under the load.
- Proper load distribution must be observed using the fifth-wheel plate and axle loads as benchmarks.
- Due to different dynamic driving test variants in accordance with DIN EN 12 642, the palletised sacks and big bags should be positioned snugly against the front bulkhead. Small gaps may be permissible between items in the direction of travel. The palletised sacks and big bags must be secured with a lashing strap and sturdy wooden boards as illustrated in the accompanying diagram. If standard securing isn't feasible, the lashing straps may also be tensioned across two rows, or crosswise in the case of palletised sacks and big bags. The risk of palletised bags or big bags bursting or tearing must be eliminated.
- When lashing down with lashing straps and using them with sturdy wooden or aluminium insert boards, each lashing strap must be pre-tensioned to at least S_{TF} 300 daN.
- Initially, each lashing strap should be tensioned to S_{TF} 500 daN to ensure a sustained S_{TF} 300 daN pre-tension. For road safety, drivers must inspect the load before departure and adjust securing if needed.



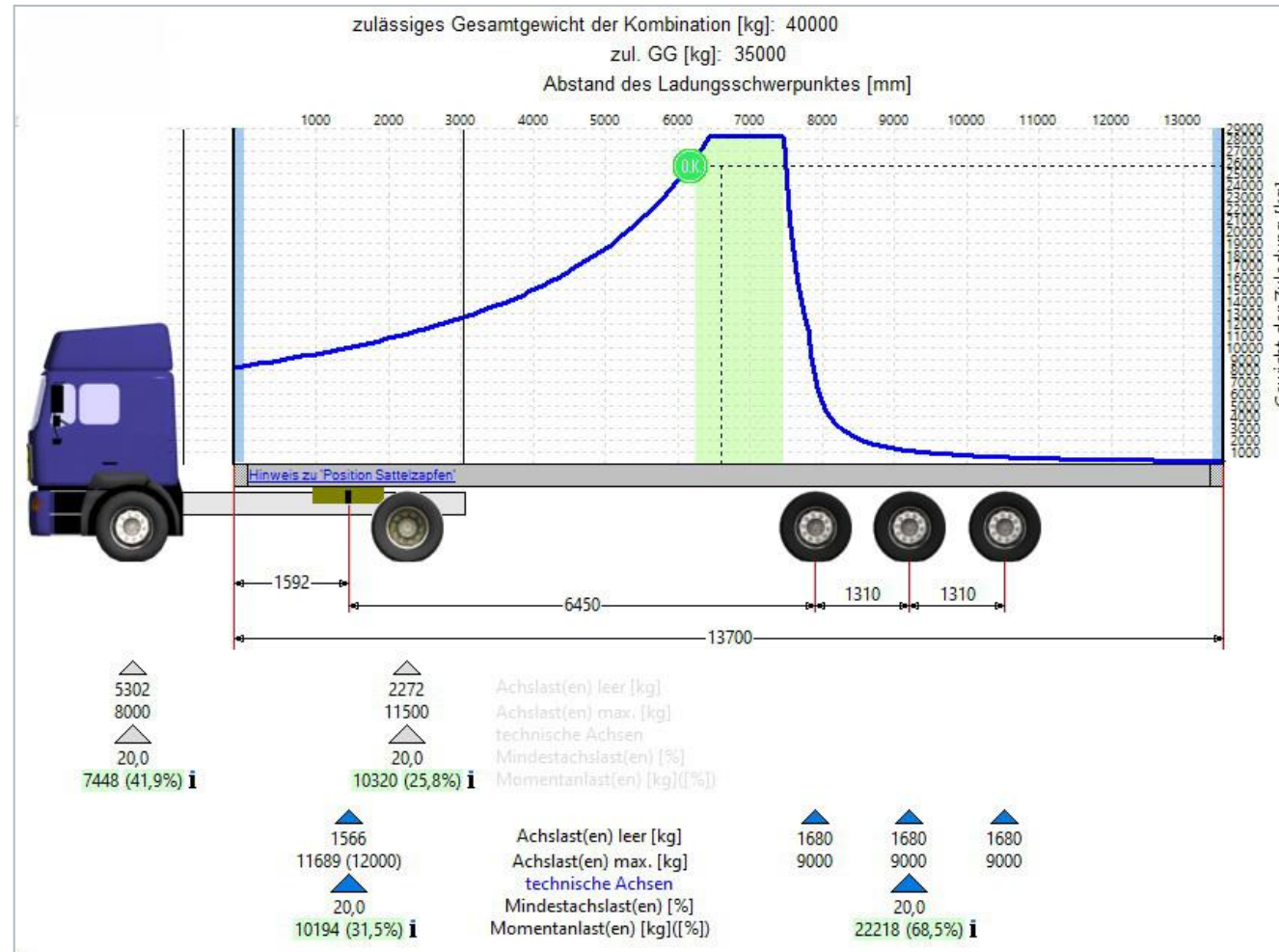
6. Loading of mixed bagged goods and big bags on pallets weighing 1030 to 1420 kg - securing with stable squared timber and GWS®-LaSi-PAPP

- **Loading area condition:** The loading area floor must be undamaged, swept clean and dry at all times (residual moisture without standing water is permitted) free of all oil, frost, ice and snow.
- **Load description:** Palletised big bags and various palletised sacks, whereby the sacks are covered with a 90-µm film bonnet and stacked together as a logistics unit. However, non-uniform bags may not always stack up neatly with the pallet.
- **The load can be secured without anti-slip mats.** According to EN 12 195-1, the friction coefficient for sawn timber (pallet) on plywood (loading surface) is μ **0.45**. If the loading area floor is a steel loading surface, anti-slip rubber mats with a friction coefficient of μ 0.6 must be used under the load.
- Proper load distribution must be observed using the fifth-wheel plate and axle loads as benchmarks.
- Due to different dynamic driving test variants in accordance with DIN EN 12 642, the palletised sacks and big bags should be positioned snugly against the front bulkhead. Small gaps may be permissible between items in the direction of travel. The palletised sacks and big bags must be secured with a lashing strap and sturdy squared timbers as illustrated in the accompanying diagram. If standard securing isn't feasible, the lashing straps may also be tensioned across two rows of racks, or crosswise in the case of palletised sacks and big bags. The risk of palletised bags or big bags bursting or tearing must be eliminated.
- When lashing down with lashing straps and using stable squared lumber, each lashing strap must be pre-tensioned to at least S_{TF} 300 daN.
- Initially, each lashing strap should be tensioned to S_{TF} 500 daN to ensure a sustained S_{TF} 300 daN pre-tension. For road safety, drivers must inspect the load before departure and adjust securing if needed.



6. Loading of mixed bagged goods and big bags on pallets weighing 1030 to 1420 kg - securing with edge protection

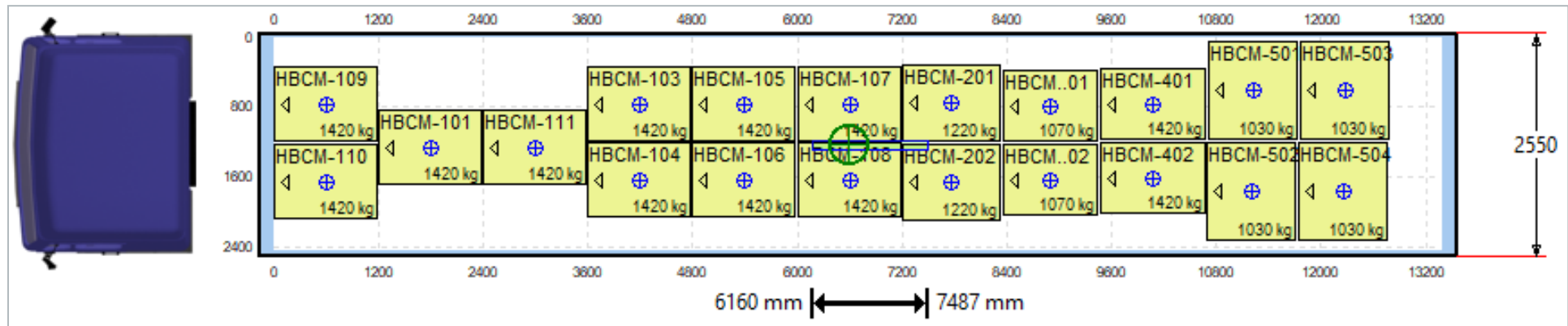
Proper load distribution plan "Mix bagged goods and big bags on pallet 1030 - 1420 kg"



6. Loading of mixed bagged goods and big bags on pallets weighing 1030 to 1420 kg - securing with edge protection

Proper load distribution plan "Mix bagged goods and big bags on pallet 1030 - 1420 kg"

Loading plan for 20 pallets



6. Loading of mixed bagged goods and big bags on pallets weighing 1030 to 1420 kg - securing with edge protection

Proper load distribution plan "Mix bagged goods and big bags on pallet 1030 - 1420 kg"

Ladefläche					
Länge [mm]	Breite [mm]	nicht nutzbarer Bereich			
		vorne [mm]	hinten [mm]	links [mm]	rechts [mm]
13700	2550	150	150	50	50
Laderaumbegrenzung					
Belastbarkeit [daN]	vorne	hinten	links	rechts	
	5000	3100	0	0	

Gesamtladungsschwerpunkt bezogen auf nutzbar. Bereich der Ladefläche		
Gewicht [kg]	Abstand von vorne [mm]	Abstand von rechts [mm]
25740	6591	1220

Ladungsanordnung bez. auf nutzbar. Bereich der Ladefläche (Bezugsp. bei Ladung ist die vordere/rechte Seite)						
NR	Bezeichnung	Abstand von vorne [mm]	Abstand von rechts [mm]	Gewicht [kg]	Ausrichtung	Bemerkungen
1	HBCM-101	1200	830	1420	nach vorne weisend	
2	HBCM-103	3600	330	1420	nach vorne weisend	
3	HBCM-104	3600	1210	1420	nach vorne weisend	
4	HBCM-105	4800	330	1420	nach vorne weisend	
5	HBCM-106	4800	1210	1420	nach vorne weisend	
6	HBCM-107	6000	330	1420	nach vorne weisend	
7	HBCM-108	6000	1210	1420	nach vorne weisend	
8	HBCM-109	0	340	1420	nach vorne weisend	
9	HBCM-110	0	1220	1420	nach vorne weisend	
10	HBCM-111	2400	830	1420	nach vorne weisend	
11	HBCM-201	7210	310	1220	nach vorne weisend	
12	HBCM-202	7200	1220	1220	nach vorne weisend	
13	HBCM-301	8360	390	1070	nach vorne weisend	
14	HBCM-302	8360	1230	1070	nach vorne weisend	
15	HBCM-401	9480	370	1420	nach vorne weisend	
16	HBCM-402	9470	1210	1420	nach vorne weisend	
17	HBCM-501	10710	60	1030	nach vorne weisend	
18	HBCM-502	10690	1210	1030	nach vorne weisend	
19	HBCM-503	11770	60	1030	nach vorne weisend	
20	HBCM-504	11750	1210	1030	nach vorne weisend	



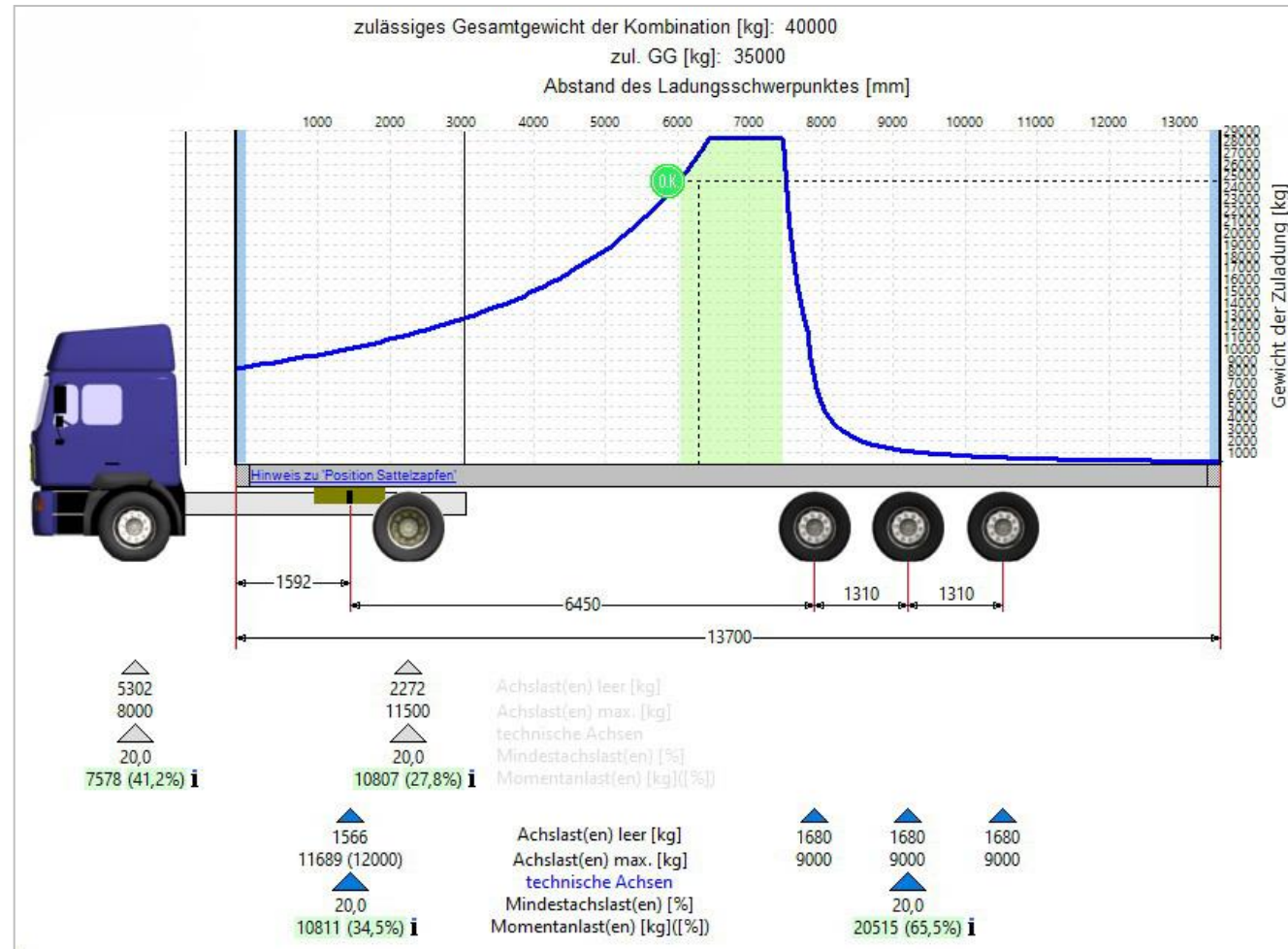
7. Loading big bags onto 1030-kg pallets - securing with GWS®-LaSi-PAPP edge protectors

- **Loading area condition:** The loading area floor must be undamaged, swept clean and dry at all times (residual moisture without standing water is permitted) free of all oil, frost, ice and snow.
- **Load description:** Palletised big bags.
- **The load can be secured without anti-slip mats.** According to EN 12 195-1, the friction coefficient for sawn timber (pallet) on plywood (loading surface) is μ **0.45**. If the loading area floor is a steel loading surface, anti-slip rubber mats with a friction coefficient of μ 0.6 must be used under the load.
- Proper load distribution must be observed using the fifth-wheel plate and axle loads as benchmarks.
- Due to different dynamic driving test variants in accordance with DIN EN 12 642, the big bags should be positioned snugly against the front bulkhead. Small gaps may be permissible between items in the direction of travel. The palletised big bags must be secured with a lashing strap and GWS-LaSi cardboard as illustrated in the accompanying diagram. If standard securing isn't feasible, the lashing straps may also be tensioned across two rows, or crosswise in the case of palletised big bags. The risk of palletised big bags bursting or tearing must be eliminated.
- When securing with lashing straps and GWS-LaSi cardboard, each lashing strap must be pre-tensioned to at least S_{TF} 300 daN.
- Initially, each lashing strap should be tensioned to S_{TF} 500 daN to ensure a sustained S_{TF} 300 daN pre-tension. For road safety, drivers must inspect the load before departure and adjust securing if needed.



7. Loading big bags onto 1030-kg pallets - securing with edge protection

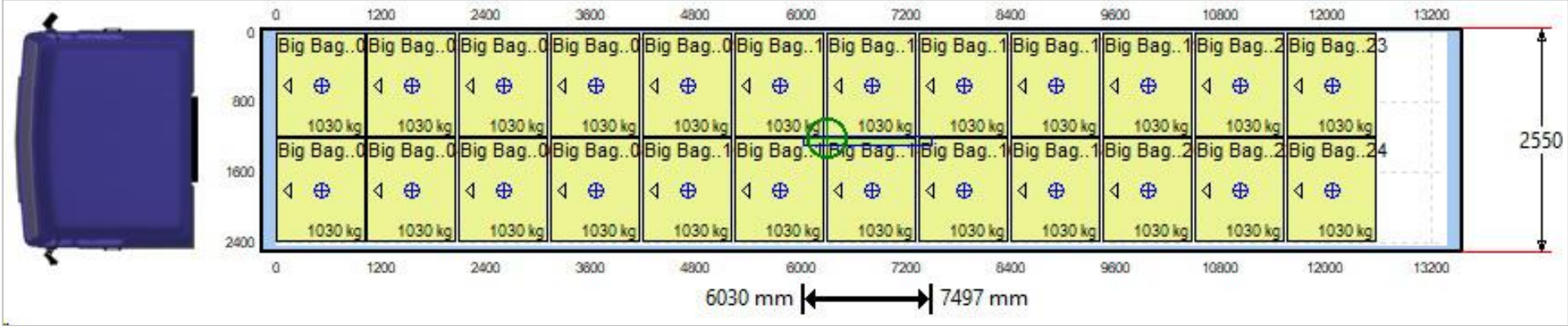
Proper load distribution plan "Big Bags on 1030-kg pallets"



7. Loading big bags onto 1030-kg pallets - securing with edge protection

Proper load distribution plan "Big Bags on 1030-kg pallets"

Loading plan for 24 pallets



7. Loading big bags onto 1030-kg pallets - securing with edge protection

Proper load distribution plan "Big Bags on 1030-kg pallets"

Ladefläche					
Länge [mm]	Breite [mm]	nicht nutzbarer Bereich			
		vorne [mm]	hinten [mm]	links [mm]	rechts [mm]
13700	2550	150	150	50	50
Laderaumbegrenzung					
Belastbarkeit		vorne	hinten	links	rechts
[daN]		5000	3100	0	0

Gesamtladungsschwerpunkt bezogen auf nutzbar. Bereich der Ladefläche		
Gewicht [kg]	Abstand von vorne [mm]	Abstand von rechts [mm]
24720	6300	1200

Ladungsanordnung bez. auf nutzbar. Bereich der Ladefläche (Bezugspt. bei Ladung ist die vordere/rechte Seite)						
NR	Bezeichnung	Abstand von vorne [mm]	Abstand von rechts [mm]	Gewicht [kg]	Ausrichtung	Bemerkungen
1	Big Bag-HC-1030kg01	0	0	1030	nach vorne weisend	
2	Big Bag-HC-1030kg02	0	1200	1030	nach vorne weisend	
3	Big Bag-HC-1030kg03	1050	0	1030	nach vorne weisend	
4	Big Bag-HC-1030kg04	1050	1200	1030	nach vorne weisend	
5	Big Bag-HC-1030kg05	2100	0	1030	nach vorne weisend	
6	Big Bag-HC-1030kg06	2100	1200	1030	nach vorne weisend	
7	Big Bag-HC-1030kg07	3150	0	1030	nach vorne weisend	
8	Big Bag-HC-1030kg08	3150	1200	1030	nach vorne weisend	
9	Big Bag-HC-1030kg09	4200	0	1030	nach vorne weisend	
10	Big Bag-HC-1030kg10	4200	1200	1030	nach vorne weisend	
11	Big Bag-HC-1030kg11	5250	0	1030	nach vorne weisend	
12	Big Bag-HC-1030kg12	5250	1200	1030	nach vorne weisend	
13	Big Bag-HC-1030kg13	6300	0	1030	nach vorne weisend	
14	Big Bag-HC-1030kg14	6300	1200	1030	nach vorne weisend	
15	Big Bag-HC-1030kg15	7350	0	1030	nach vorne weisend	
16	Big Bag-HC-1030kg16	7350	1200	1030	nach vorne weisend	
17	Big Bag-HC-1030kg17	8400	0	1030	nach vorne weisend	
18	Big Bag-HC-1030kg18	8400	1200	1030	nach vorne weisend	
19	Big Bag-HC-1030kg19	9450	0	1030	nach vorne weisend	
20	Big Bag-HC-1030kg20	9450	1200	1030	nach vorne weisend	
21	Big Bag-HC-1030kg21	10500	0	1030	nach vorne weisend	
22	Big Bag-HC-1030kg22	10500	1200	1030	nach vorne weisend	
23	Big Bag-HC-1030kg23	11550	0	1030	nach vorne weisend	
24	Big Bag-HC-1030kg24	11550	1200	1030	nach vorne weisend	





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