



Packaging Guidelines for Aftermarket and SOE Products

HELLA Norm
HN26112

Norm Classification: Int

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Designer of the HN:

HRO-AM-LOR Iulia Popoviciu
HD-IFSP Hans Tissen

PDE of the related process:

HCC-LOSP Jochen Förderer

PLD of the related process:

HCC-LOSP Jochen Förderer

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1 Process assignment acc. to HPH

Business process: I2P – Idea to Process
Main process: I2P-20 – Define, detail and realize product and operations concept
Sub-process: I2P-20-30-10-10 – Gather logistics requirements

2 Purpose and scope

HELLA packaging is regarded as a sales unit and is fully utilized from the time the goods are transported up until their use. HELLA packaging serves to promote the brand and also to protect the product on the journey from its source to the end-customer. A distinction is always made between a product box and a dispatch box. HELLA uses a clearly defined module system for product and dispatch boxes.



The appearance must comply with HELLA corporate design. Different designs are used depending on the size of the product box. Packaging with advertising statements is subject to the requirements of the HELLA norm N21028 relating to packaging design.

HELLA product boxes can be designed as individual, multi-pack or range packaging variants. Depending on the size, weight and necessary protection of the product to be packed, solid cardboard or corrugated cardboard boxes are used. Secure fastening must be ensured for transport and handling. The packaging must have a HELLA label including an EAN code attached to it in accordance with this HELLA norm and with the current company name. In the case of multi-packs, the appropriate quantity must be indicated on the label. The marking of the country of origin, "Made in" (country of origin), only appears on the label.

All packaging, labels and other packaging materials (including products) must be first made available for initial sample inspection. Each sampling must include an initial sample inspection report. Initial sample inspection forms can be requested from the Product Manager. HELLA Quality Management is responsible for releasing the sample. Later changes to the packaging material/layout used are subject to repeated inspection and then again to release by HELLA. Deliveries without the necessary approval and release are rejected.

All scheduled packaging has to be planned and designed for the entire supply chain (supplier to end-customer). The central warehouse is never regarded as the end-customer.

All specifications regarding the use of packaging and labels and also those determining design are defined by the HELLA Product Management. Printing data for HELLA standard cardboard boxes is available in digital form and can be provided by HELLA Marketing.

If the use of packaging deviating from the HELLA modular system is required, e.g. for reasons of product geometry, the design of such packaging is then carried out in accordance with the HELLA norm on packaging design. A release by HELLA is always required in such cases.

Similarly, all deviations from this HELLA norm require the approval of HELLA Product Management in consultation with the central HELLA packaging planning department in the Aftermarket and SOE business divisions.

This HELLA norm HN26110 applies to all HELLA companies worldwide and also to external suppliers and service providers.

3 Level of confidentiality

This HELLA Norm is assessed as internal.

4 Normative references

DIN EN 14054	Packaging - Paper and paperboard packaging - Design of cartons; German version EN 14054:2003
DIN EN 14053	Packaging material - packaging manufactured from corrugated or solid fiberboard – type and styles of boxes; German version EN 14053:2003
DIN55468-1	Packaging materials - corrugated cardboard - Part 1: requirements, testing
DIN EN 22248	Packaging; complete, filled transport packages; vertical impact test by dropping (ISO 2248:1985); German version EN 22248:1992
HP-C-527	ESD Control Program Plan - Electrostatic discharge (ESD) - protection of components, assemblies and systems at risk from electrostatic interference
HF-5532_GH	Packaging Data Sheet for Sales items
HN26114	Supply Guideline Aftermarket (HKG)
HN26110	HELLA Cross Docking Aftermarket
N22017	General tolerances for packaging

5 Definitions

Pantone	International color matching system
HKS	Color fan of a German color manufacturer for so-called basic and full-tone colors
A	Outer dimension
I	Inner dimension
FBD	Folding box with base and lid closure flaps
FAE	Folding box with auto-lock bottom and insert lid (possibly with safety closure)
W	Folding box made of corrugated cardboard
V	Folding box made of solid cardboard
UD2	Uncoated white lined chipboard (Duplex board)
GD2	Coated white lined chipboard (Duplex board)
FEFCO	Fédération Européenne des Fabricants de Carton Ondulé European Corrugated Packaging Association
VH	Height of capitals
Opac	Opaque

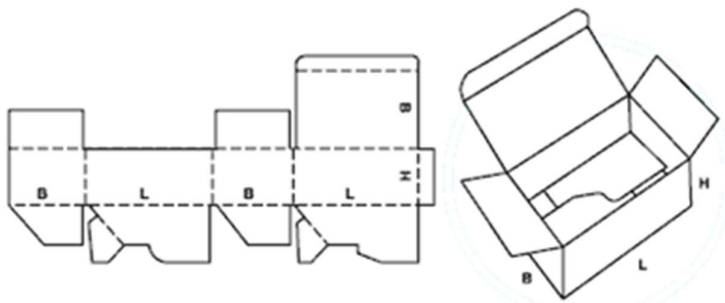
6 Cardboard boxes

6.1 Requirements of HELLA product boxes

HELLA product boxes are designed according to the international standards DIN EN 14053 and DIN EN 14054 (FEFCO norm).

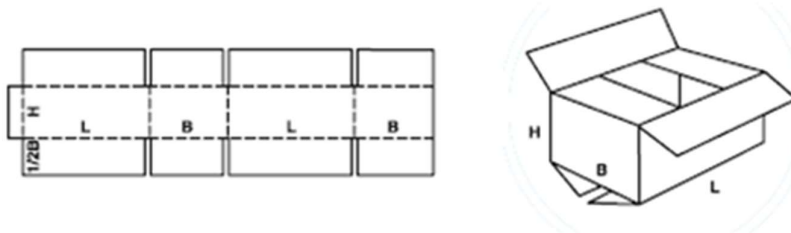
6.1.1 Construction

The packaging concepts used are either packaging with auto-lock bottom or packaging with top and bottom closure flaps.



FEFCO Norm 0713

Boxes
With auto-lock bottom and tuck flap top (possibly with safety closure)



FEFCO Norm 0201

Boxes
With top and bottom closure flaps

The appropriate variants including specified label sizes are to be used in line with product dimensions. See section 9.1

Important: In the case of any deviations, approval by the central HELLA packaging planning department in the Aftermarket and SOE business divisions is required.

6.1.2 Design

We have a standard design for every variant of product boxes.



Design: IAM logos
Print: yellow, printed on the entire surface (HKS 4)
HELLA logo - lettering, blue (Pantone 2955 C)

Print data can be requested from HELLA Marketing.

Important: Supplier logos and names must not be visible on any packaging material, just by exception when it is previously agreed with the product management.

6.1.3 Material

Primarily solid cartons - qualities 700 g/m², 550 g/m² and 350g/m² in UD2 and/or GD2 - are used for product boxes.

Lamination is made of uncoated duplex board, printed side white, and constitutes 100% recycled paper. Low-grade material made out of 100% recycled paper does not meet quality requirements and is not acceptable for cardboard boxes.

Product boxes with higher stability requirements are made from corrugated cardboard, either B or E flute. The following material requirements apply here.

Type of corrugated cardboard in DIN 55468:



1.40 or 1.30 for B flute

1.20 for E-flute



Flute type	Code	Flute pitch t	Flute height h
Fine-flute	B	5,5 - 6,5 mm	2,2 - 3,0 mm
Extra fine flute	E	3,0 - 3,5 mm	1,0 - 1,8 mm

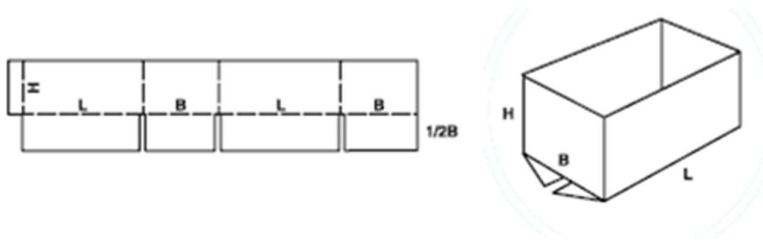
Flute type	Burst resistance kPa (DIN 55468)	Puncture resistance J (DIN 55468)	Edge crush resistance kN/m (DIN 55468)
1.20	850	3,5	4,0
1.30	1.100	4,0	4,5
1.40	1.350	4,5	5,5

6.2 Requirements of HELLA dispatch boxes

HELLA product boxes are designed according to the international standards DIN EN 14053 and DIN EN 14054 (FEFCO norm).

6.2.1 Construction

In dispatch boxes, a distinction is made between an open box with bottom closure flaps (possibly with slip lid) and a closed box with top and bottom closure flaps.



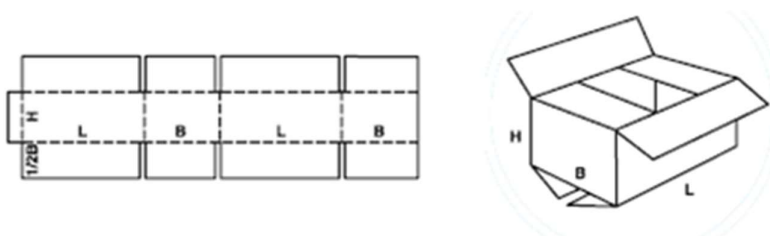
FEFCO norm 0200

Open box variant



FEFCO norm 0451

Slip lid



FEFCO norm 0201

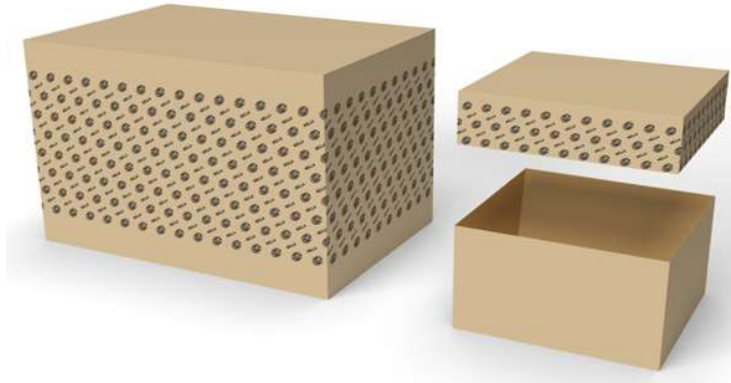
Closed box variant

The appropriate variants of dispatch packaging and their corresponding labels can be used to suit the dimensions of product boxes.

Important: In case of any deviations, approval by the central HELLA packaging planning department in the Aftermarket and SOE business divisions is required.

6.2.2 Design

Brown boxes are used exclusively as dispatch boxes.



Dispatch box,
Closed variant and
open variant
with slip lid

Print data can be requested from HELLA Marketing.

Important: Supplier logos and names must not be visible on any packaging material, just by exception when it is previously agreed with the product management.

6.2.3 Material

ONLY packaging consisting of double-flute corrugated cardboard in the B-C flute combination is permitted for dispatch boxes. The material to be used is corrugated cardboard with the following material specifications:

Corrugated cardboard types in accordance with DIN 55468



2.30 or 2.50 B-C flute

Flute type	Code	Flute pitch t	Flute height h
Medium fluting	C	6,8 - 7,9 mm	3,2 - 3,9 mm
Fine flute	B	5,5 - 6,5 mm	2,2 - 3,0 mm

Flute type	Burst resistance kPa (DIN 55468)	Puncture resistance J (DIN 55468)	Edge crush resistance kN/m (DIN 55468)
2.30	1.100	6,5	7,0
2.50	1.600	8,5	8,5

Important: In case of any deviations, approval by the central HELLA packaging planning department in the Aftermarket and SOE business divisions is required.

6.2.4 Material of box lid



Flute type	Code	Flute pitch t	Flute height h
Feinwelle	B	5,5 - 6,5 mm	2,2 - 3,0 mm

6.3 HELLA packaging aids

Packaging Aids will be used to stop the parts in the boxes from moving during the transport and as an additional cover to prevent parts from getting damaged.



Foam bag



Bubble bag



PE-Bag

Hella packaging aids dimension in MM:

HELLA Material number	Description	Dimensions			Net weight (G)	Material
		Length	Width	Height		
Packaging aids for boxes						
487.360-16	Bubble bag	460	700	10	86	P
487.360-00	Foam bag	240	310	2,5	4,5	P
487.360-04	Foam bag	250	480	2,5	13	P
487.360-06	Foam bag	300	320	0,8	4	P
487.360-02	Foam bag	320	200	2,5	7	P
487.360-05	Foam bag	370	380	2,5	16	P
487.360-15	Foam bag	400	635	1,5	17	P
487.360-07	Foam bag	500	400	0,8	7	P
487.202-00	PE-bag	85	125	0,03	0,8	P
480.487-08	PE-bag	90	325	0,09	5	P
487.200-00	PE-bag	100	60	0,04	0,4	P
487.255-00	PE-bag	100	255	0,09	4	P
480.488-02	PE-bag	120	175	0,09	3,8	P
487.257-00	PE-bag	125	150	0,1	3,5	P
487.204-00	PE-bag	150	125	0,04	14	P
480.490-06	PE-bag	182	380	0,1	8	P
480.490-01	PE-bag	185	225	0,09	7	P
487.205-00	PE-bag	200	140	0,03	2	P
480.326-58	PE-bag black	200	250	0,08	9	P
487.209-00	PE-bag	230	400	0,02	4	P
487.259-00	PE-bag	235	335	0,09	10	P
487.226-00	PE-bag ESD	250	300	0,06	0,01	P
487.227-00	PE-bag ESD	250	300	0,1	24	P
487.207-00	PE-bag	270	185	0,04	18	P
480.530-00	PE-bag	297	380	0,1	20	P
480.017-42	PE-bag	300	200	330	15	P
480.017-23	PE-bag	350	350	550	12	P
487.210-00	PE-bag	360	380	0,03	10	P
487.211-00	PE-bag	400	500	0,03	7	P
487.261-00	PE-bag	400	650	0,09	47	P
487.224-00	PE-bag	500	700	0,04	32	P
480.017-06	PE-bag	550	450	650	22	P
487.220-00	PE-bag	550	450	850	92	P

C: Cardboard (Paper, corrugated cardboard, solid board)

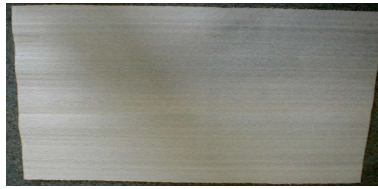
P: Plastic (PE, PP, PET...)

WO: Wood

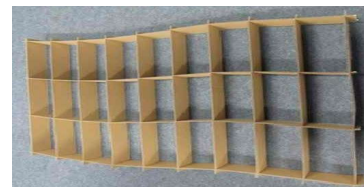
6.3 HELLA packaging aids



Intermediate layer



Foam intermediate layer



Compartmented insert

Hella packaging aids dimension in MM:

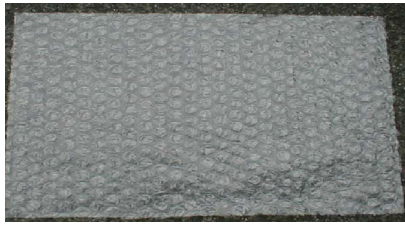
HELLA Material number	Description	Dimensions			Net weight (G)	Material
		Length	Width	Height		
Packaging aids for boxes						
485.000-23	Compartmented insert	557	460	230	271	C
487.600-50	Compartmented insert	766	591	47	270	C
487.110-32	Compartmented insert	985	580	352	1011	C
480.203-22	Compartmented insert	1130	760	106	600	C
486.064-73	Compartmented insert	1146	762	240	682	C
487.600-48	Compartmented insert	1164	766	130	480	C
487.600-47	Compartmented insert	1168	767	97	650	C
487.600-49	Compartmented insert	1168	769	130	720	C
480.203-19	Compartmented insert	1185	783	151	470	C
486.035-07	Foam intermediate layer	383	315	3	7	P
486.037-05	Foam intermediate layer	510	220	0,8	5	P
486.064-29	Foam intermediate layer	540	370	2,5	10	P
477.112-05	Foam intermediate layer	565	360	0,8	3,5	P
487.360-09	Foam intermediate layer	650	650	4	37	P
477.002-07	Foam intermediate layer	1200	795	0,8	15	P
486.055-39	Intermediate layer	120	320	2	21	C
485.023-21	Intermediate layer	150	464	2	30	C
487.585-61	Intermediate layer	170	250	2	19	C
485.092-21	Intermediate layer	220	128	3	12	C
485.090-21	Intermediate layer	225	177	3	17	C
486.029-60	Intermediate layer	235	185	2	25	C
480.017-43	Intermediate layer	260	135	2	17	C
486.020-34	Intermediate layer	265	170	3	17	C
485.065-21	Intermediate layer	272	149	3	17	C
485.060-21	Intermediate layer	272	233	3	27	C
486.022-63	Intermediate layer	290	190	2	20	C
485.050-21	Intermediate layer	300	240	3	30	C
480.017-22	Intermediate layer	330	243	2	24	C
485.015-21	Intermediate layer	370	275	3	38	C
485.041-21	Intermediate layer	376	236	3	32	C
486.022-47	Intermediate layer	380	283	3	40	C
485.020-21	Intermediate layer	459	271	3	46	C
480.017-02	Intermediate layer	524	338	2	75	C
467.301-81	Intermediate layer	524	338	3	77	C
487.541-31	Intermediate layer	550	755	3	188	C
477.112-02	Intermediate layer	560	360	2	86	C
485.005-21	Intermediate layer	560	370	2	77	C
485.000-21	Intermediate layer	560	460	3	94	C
486.022-62	Intermediate layer	580	380	3	85	C
487.540-31	Intermediate layer	750	1145	3	365	C
487.535-31	Intermediate layer	785	1190	3	397	C
487.550-31	Intermediate layer	985	580	3	212	C
487.552-61	One sided intermediate layer	380	900	2	15	C

C: Cardboard (Paper, corrugated cardboard, solid board)

P: Plastic (PE, PP, PET...)

WO: Wood

6.3 HELLA packaging aids



Air bubble film



Oneway layer



Tissue



Foam pad



Cover (Cardboard)



Cover (Wood)

Hella packaging aids dimension in MM:

HELLA Material number	Description	Dimensions			Net weight (G)	Material
		Length	Width	Height		
Packaging aids for boxes						
487.360-13	Air bubble film	750	580	10	48	P
480.392-36	Foam pad	180	40	45	7	P
480.392-61	Foam pad	180	80	45	12,34	P
822.001-03M	Tissue gray	375	500	0,01	7	C
480.017-41	Cover	262	137	3	21	C
480.017-21	Cover	335	248	2	48	C
480.017-04	Cover	533	347	3	107	C
Packaging aids for pallets						
480.010-11	Cover	1200	800	35	3000	WO
480.010-10	Cover	1200	1000	35	3500	WO
487.600-05	Cover	1220	820	100	120	C
487.500-04	One way layer	1060	1200	3	525	C
487.500-02	One way layer	1260	1200	3	675	C

C: Cardboard (Paper, corrugated cardboard, solid board)
P: Plastic (PE, PP, PET...)
WO: Wood

7 HELLA Packaging system

Two module systems are available for determining the correct product box and the corresponding dispatch box. If optimal packaging cannot be found with these systems, it is then necessary to consult the central HELLA packaging department in the Aftermarket and SOE business divisions.



7.1 Module system I

7.1.1 Product boxes in module system I

→ Product boxes are always VPK

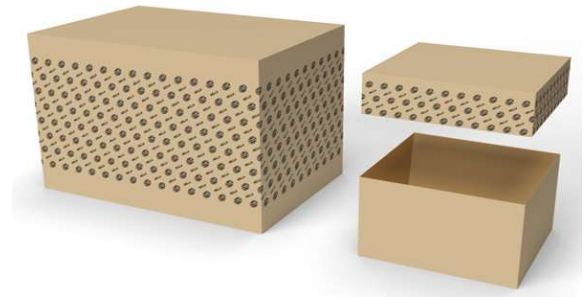
Outer dimensions of the product boxes Hella IAM logos in mm:

HELLA Material number	Outer dimensions			Net weight (G)	Design/ FEFCO	Quality / Requirement	Material	Label
	Length	Width	Height					
485 138-45	83	57	190	40	FAEF0713	550g/m ² UD2	V	75x50
485 078-45	95	47	250	60	FAEF0713	550g/m ² UD2	V	60x27
485 059-45	114	95	334	120	FAEF0713	700g/m ² UD2	V	75x50
485 038-45	125	44	380	80	FAEF0713	550g/m ² UD2	V	60x27
485 098-45	127	95	250	100	FAEF0713	550g/m ² UD2	V	75x50
485 019-45	127	57	500	120	FAEF0713	550g/m ² UD2	V	75x50
485 148-45	143	95	125	57	FAEF0713	550g/m ² UD2	V	75x50
485 146-45	143	127	167	84	FAEF0713	550g/m ² UD2	V	75x50
485 056-45	143	127	334	171	FAEF0713	700g/m ² UD2	V	75x50
485 018-45	143	127	500	230	FAEF0713	700g/m ² UD2	W	75x50
485 037-45	167	44	380	100	FAEF0211	700g/m ² UD2	W	60x27
485 012-45	167	125	380	131	FAEF0713	1.20 E	W	75x50
485 036-45	167	114	380	183	FAEF0713	1.20 E	W	75x50
485 136-45	190	114	125	100	FAEF0713	1.20 W	V	75x50
485 109-45	190	143	125	118	FAEF0713	700g/m ² UD2	V	75x50
485 127-45	190	143	167	120	FAEF0713	700g/m ² UD2	V	75x50
485 125-45	190	190	84	129	FAEF0713	700g/m ² UD2	V	75x50
485 124-45	190	190	100	120	FAEF0713	700g/m ² UD2	V	75x50
485 123-45	190	190	125	150	FAEF0713	700g/m ² UD2	V	75x50
485 122-45	190	190	167	140	FAEF0713	700g/m ² UD2	V	75x50
485 079-45	190	95	250	120	FAEF0713	700g/m ² UD2	V	75x50
485 088-45	190	114	250	140	FAEF0713	700g/m ² UD2	V	75x50
485 086-45	190	143	250	171	FAEF0713	700g/m ² UD2	V	75x50
485 083-45	190	190	250	164	FAEF0713	700g/m ² UD2	V	75x50
485 058-45	190	76	334	156	FAEF0713	700g/m ² UD2	V	75x50
485 039-45	190	63	380	138	FAEF0713	700g/m ² UD2	W	75x50
485 013-45	190	143	500	309	FAEF0713	1.40 B	W	75x50
485 016-45	190	50	570	170	FAEF0211	700g/m ² UD2	V	60x27
485 003-45	190	167	570	197	FAEF0713	1.40 B	W	75x50
485 075-45	285	76	250	162	FAEF0713	700g/m ² UD2	V	75x50
485 071-45	285	127	250	160	FAEF0713	700g/m ² UD2	V	75x50
485 074-45	285	190	100	120	FAEF0713	700g/m ² UD2	V	75x50
485 072-45	285	190	167	160	FAEF0713	700g/m ² UD2	V	75x50
485 073-45	285	190	125	192	FAEF0713	700g/m ² UD2	V	75x50
485 061-45	285	250	190	182	FAEF0713	1.40 B	W	75x50
485 017-45	285	127	500	377	FAEF0713	1.40 B	W	75x50
485 029-45	380	190	167	151	FAEF0713	1.40 B	W	75x50
485 048-45	380	250	190	339	FAEF0713	1.40 B	W	75x50

HELLA packaging system - product boxes in module system I

7.1.2 Dispatch boxes in module system I

→ Dispatch boxes are always VPG



Inner dimensions of dispatch boxes in mm:

HELLA Material number	Inner dimensions			Net weight (G)	Design / FEFCO	Quality / Requirement	Material	Label
	Length	Width	Height					
Open variant with slip lid:								
487 017-40	580	380	256	674	FAEF0200	2.30 BC	W	75 x 50
487 016-40	580	380	340	792	FAEF0200	2.30 BC	W	75 x 50
487 015-40	580	380	505	1040	FAEF0200	2.30 BC	W	75 x 50
Slip lid*:								
486 022-17	599	395	100	294	FAEF0451	1.40 B	W	75 x 50
Closed variant:								
487.017-00	575	380	250	835	FBDF0201	2,30 BC	W	75 x 50
487 016-00	575	380	334	881	FBDF0201	2.30 BC	W	75 x 50
487 015-00	575	380	500	1102	FBDF0201	2.30 BC	W	75 x 50

HELLA packaging system - dispatch boxes in module system I

*For each open variant dispatch box, only one universal slip lid 486.022-17 should be used.

FBD: Folding box with top and bottom closure flaps

FAE: Folding box with auto-lock bottom and insert lid (possibly with safety closure)

W: Folding box made of corrugated cardboard

7.1.3 Capacity table for module system I

→ Describes how much Product boxes fit into the different variants of dispatch boxes



Product boxes IAM logos

HELLA dispatch boxes

Product boxes HELLA-D			Quantity in dispatch boxes		
HELLA KGaA Material number	Outer dimensions (mm) Length x Width x Height	Net weight (G)	<u>Small box</u>	<u>Middle box</u>	<u>Big box</u>
			487 017-40/-00 595x395x271 = O 580x380x256 = I	487 016-40/-00 595x395x355 = O 580x380x340 = I	487 015-40/-00 595x395x520 = O 580x380x505 = I
485 138-45	83 x 57 x 190	40	60	80	120
485 078-45	95 x 47 x 250	60	48	56	96
485 059-45	114 x 95 x 334	120	-	20	25
485 038-45	125 x 44 x 380	80	26	-	52
485 019-45	127 x 57 x 500	100	-	-	30
485 098-45	127 x 95 x 250	120	18	-	36
485 148-45	143 x 95 x 125	57	32	36	64
485 146-45	143 x 127 x 167	84	16	24	36
485 056-45	143 x 127 x 334	171	-	12	-
485 018-45	143 x 127 x 500	230	-	-	12
485 037-45	167 x 44 x 38	100	-	20	39
485 036-45	167 x 114 x 380	131	-	10	15
485 012-45	167 x 125 x 380	183	6	-	12
485 016-45	190 x 50 x 570	100	10	-	20
485 039-45	190 x 63 x 380	118	12	15	24
485 058-45	190 x 76 x 334	120	-	15	-
485 079-45	190 x 95 x 250	129	12	-	24
485 136-45	190 x 114 x 125	120	20	-	40
485 088-45	190 x 114 x 250	150	10	-	20
485 109-45	190 x 143 x 125	140	16	18	32
485 127-45	190 x 143 x 167	120	-	16	24
485 013-45	190 x 143 x 500	140	-	-	8
485 003-45	190 x 167 x 570	171	-	4	6
485 125-45	190 x 190 x 84	164	18	24	36
485 124-45	190 x 190 x 100	156	-	18	30
485 123-45	190 x 190 x 125	138	12	-	24
485 122-45	190 x 190 x 167	309	-	12	18
485 086-45	190 x 143 x 250	170	8	-	16
485 083-45	190 x 190 x 250	197	6	-	12
485 075-45	285 x 76 x 250	162	10	-	20
485 071-45	285 x 127 x 250	160	6	-	12
485 017-45	285 x 127 x 500	120	-	-	6
485 074-45	285 x 190 x 100	160	-	12	20
485 073-45	285 x 190 x 125	192	8	9	16
485 072-45	285 x 190 x 167	182	-	8	12
485 061-45	285 x 250 x 190	377	4	-	8
485 029-45	380 x 190 x 167	151	-	6	9
485 048-45	380 x 250 x 190	339	3	-	6

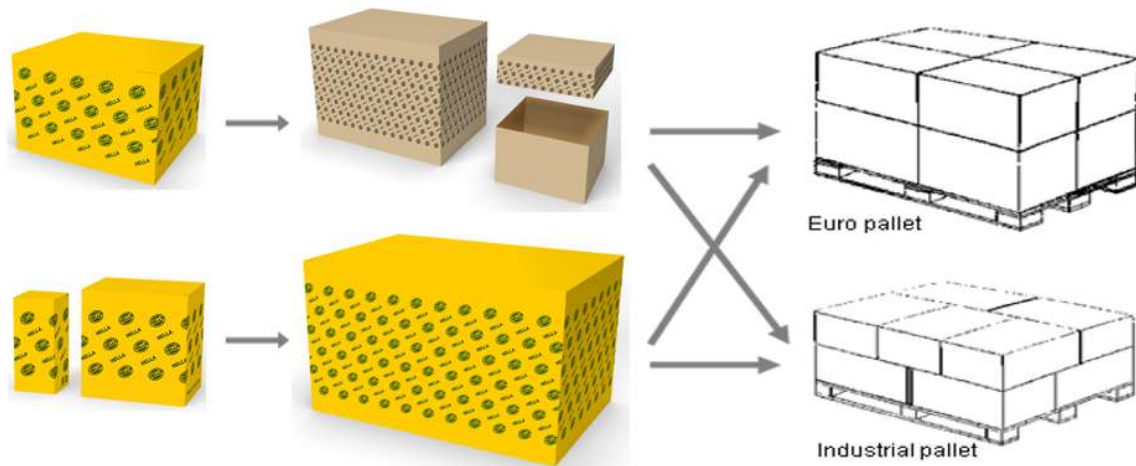
Capacity table for module system I

I: Inner dimension
O: Outer dimension

A filled dispatch box must not exceed the maximum weight of 20 kg!

7.1.4 Pallet loading for module system I

The HELLA packaging system is designed for the optimal use of Euro pallet sizes and industrial pallet dimensions.



Pallet loading for Trucks



➤ **The maximum height for a pallet when using a 40 tons truck is 1240MM!**

HELLA material number	Outer dimensions (mm) Length x Width x Height	Net weight (G)	No. of boxes (Pcs.) Euro. Indu.		No. of layers Euro pallet	No. of layers Industrial pallet	Max Pallet height (MM)
Open variant							
487 017-40	595 x 395 x 271	674	16	20	4 layers at 4 units	4 layers at 5 units	1240
487 016-40	595 x 395 x 355	792	12	15	3 layers at 4 units	3 layers at 5 units	
487 015-40	595 x 395 x 520	1040	8	10	2 layers at 4 units	2 layers at 5 units	
Closed variant							
487 017-00	595 x 395 x 271	835	16	20	4 layers at 4 units	4 layers at 5 units	1240
487 016-00	595 x 395 x 355	881	12	15	3 layers at 4 units	3 layers at 5 units	
487 015-00	595 x 395 x 520	1102	8	10	2 layers at 4 units	2 layers at 5 units	

Truck type	Possible euro pallets	Possible industrial pallets
40 tons standard Truck	34 pallets (unstacked) 68 pallets (stacked)	26 pallets (unstacked) 52 pallets (stacked)

Important: Every layer is to be separated by an intermediate layer. Every Pallet is to have a cover frame.

Pallet loading for Standard 40ft Container



➤ **The maximum height for a pallet when using a 40ft Standard Container is 1100MM!**

HELLA material number	Outer dimensions (mm) Length x Width x Height	Net weight (G)	No. of boxes (Pcs.)		No. of layers Euro pallet	No. of layers Industrial pallet	Max Pallet height (MM)
Euro. Indu.							
Open variant							
487 017-40	595 x 395 x 271	674	12	15	3 layers at 4 units	3 layers at 5 units	1100
487 016-40	595 x 395 x 355	792	8	10	2 layers at 4 units	2 layers at 5 units	
487 015-40	595 x 395 x 520	1040	4	5	1 layers at 4 units	1 layers at 5 units	
Closed variant							
487 017-00	595 x 395 x 271	835	12	15	3 layers at 4 units	3 layers at 5 units	1100
487 016-00	595 x 395 x 355	881	8	10	2 layers at 4 units	2 layers at 5 units	
487 015-00	595 x 395 x 520	1102	4	5	1 layer at 4 units	1 layer at 5 units	

Container type	Possible euro pallets	Possible industrial pallets
40 feet standard container	23-24 pallets (unstacked)	20-21 pallets (unstacked)
	46-48 pallets (stacked)	40-42 pallets (stacked)

Important: Every layer is to be separated by an intermediate layer. Every Pallet is to have a cover frame.

7.2 Module system II



7.2.1 Product boxes in module system II

→ Product boxes are always VPK

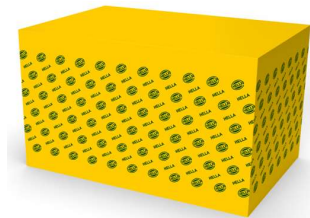
Outer dimension of the product boxes IAM yellow in mm:

HELLA material number	Outer dimensions			Net weight (G)	Design / FEFCO	Quality / Requirement	Material	Label
	Length	Width	Height					
485 192-50	38	38	75	6	FAEF0713	350g/m ² UD2	V	60x27
485 162-50	47	47	125	18	FAEF0713	550g/m ² UD2	V	60x27
485 190-50	54	46	75	9	FAEF0713	350g/m ² UD2	V	60x27
485 152-50	61	46	376	60	FAEF0713	550g/m ² UD2	V	60x27
485 188-50	75	55	75	12	FAEF0713	350g/m ² UD2	V	60x27
485 182-50	92	75	75	27	FAEF0713	550g/m ² UD2	V	60x27
485 184-50	95	95	125	48	FAEF0713	550g/m ² UD2	V	75x50
485 186-50	125	46	92	20	FAEF0713	550g/m ² UD2	V	60x27
485 154-50	125	61	138	40	FAEF0713	550g/m ² UD2	V	60x27
485 158-50	125	92	75	40	FAEF0713	550g/m ² UD2	V	60x27
485 156-50	149	35	188	60	FAEF0713	550g/m ² UD2	V	60x27

HELLA packaging system - product boxes in module system

FAE: Folding box with auto-lock bottom and insert lid (possibly with safety closure)

V: Folding box made of solid cardboard



7.2.2 Dispatch boxes in module system II

→ Dispatch boxes are always VPG

Inner dimensions of dispatch boxes IAM yellow in mm:

HELLA material number	Inner Dimensions			Net weight (G)	Design / FEFCO	Quality / Requirement	Material	Label
	Length	Width	Height					
487 069-05	383	283	157	437	FAEF0201	2.30 C	W	75x50
487 068-05	383	283	193	506	FAEF0201	2.30 C	W	75x50
487 067-05	383	283	247	475	FAEF0201	2.30 C	W	75x50

HELLA packaging system - dispatch boxes in module system II

FAE: Folding box with auto-lock bottom and insert lid (possibly with safety closure)

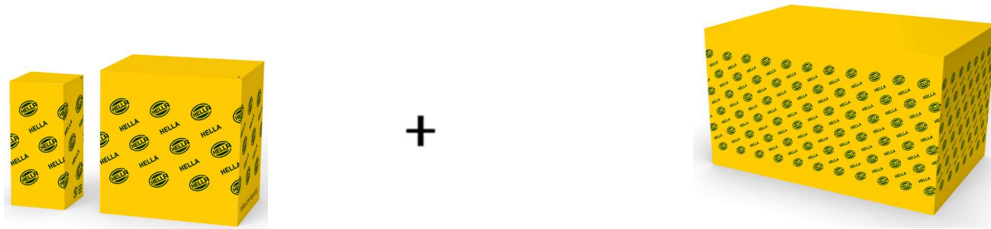
W: Folding box made of corrugated cardboard

Product and shipping cardboard boxes must be sealed with transparent adhesive tape!

Important: Dispatch boxes which are used as individual product packaging on account of the product geometry, require a higher degree of product security, e.g. trays with stretch film. These boxes are suitable for direct pallet stacking. No other dispatch boxes are then required. When using non-HELLA-packaging, the supplier must ensure that the inner packaging protects the product according to the criteria of the drop test in compliance with DIN EN 22248. The use of non-HELLA-packaging must be approved by the central HELLA packaging planning department in the Aftermarket and SOE business divisions.

7.2.3 Capacity table for module system II

→ Describes how much Product boxes fit into the different variants of dispatch boxes



Product boxes IAM yellow

Dispatch boxes IAM logos

Product boxes HELLA - G			Quantity in dispatch boxes IAM logos			
HELLA material number	Outer dimensions (mm) Length x Width x Height	Net weight (G)	Design	Small Box	Middle Box	Big Box
				487 069--05 397x298x187 = O 383x283x157 = I	487 068--05 397x298x223 = O 383x283x193 = I	487 067--05 398x298x277 = O 383x283x247 = I
485 192-50	38 x 38 x 75	6	IAM logos	140	175	210
485 162-50	47 x 47 x 125	18	IAM logos	54	72	90
485 190-50	54 x 46 x 75	9	IAM logos	84	100	125
485 152-50	61 x 46 x 376	60	IAM logos	-	18	24
485 188-50	75 x 55 x 75	12	IAM logos	50	-	75
485 182-50	92 x 75 x 75	27	IAM logos	30	-	45
485 184-50	95 x 95 x 125	48	IAM logos	12	16	-
485 186-50	125 x 46 x 92	20	IAM logos	-	36	45
485 154-50	125 x 61 x 138	40	IAM logos	12	18	24
485 158-50	125 x 92 x 75	40	IAM logos	18	-	27
485 156-50	149 x 35 x 188	60	IAM logos	16	-	-

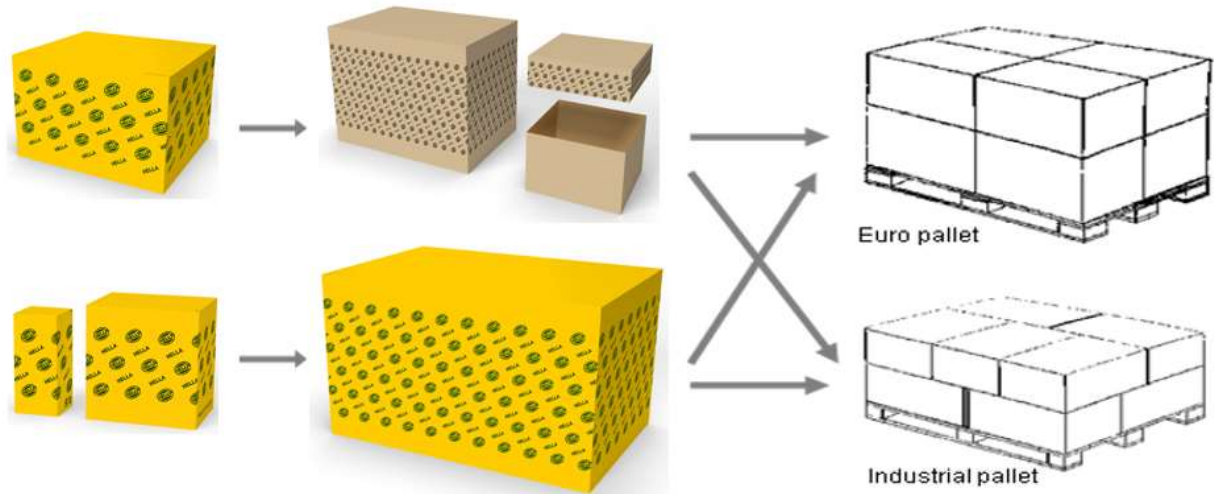
Capacity table for module system II

I: Inner dimension
O: Outer dimension

A filled dispatch box must not exceed the maximum weight of 20 kg!

7.2.4 Pallet loading for module system II

The HELLA packaging system is designed for the optimal use of Euro pallet sizes and industrial pallet dimensions.



Pallet loading for Trucks



➤ The maximum height for a pallet when using a standard 40 tons truck is **1240MM!**

HELLA material number	Outer dimensions (mm) Length x Width x Height	Net weight (G)	No. of boxes (Pcs.)		No. of layers Euro pallet	No. of layers Industrial pallet	Max Pallet height (MM)
			Euro.	Indu.			
487 069-05	397 x 298 x 187	437	40	50	5 layers at 8 units	5 layers at 10 units	
487 068-05	397 x 298 x 223	506	32	40	4 layers at 8 units	4 layers at 10 units	
487 067-05	398 x 298 x 277	475	24	30	3 layers at 8 units	3 layers at 10 units	1240

Truck type	Possible euro pallets	Possible industrial pallets
40 tons standard Truck	34 pallets (unstacked) 68 pallets (stacked)	26 pallets (unstacked) 52 pallets (stacked)

Important: Every layer is to be separated by an intermediate layer. Every Pallet is to have a cover frame.

Pallet loading for standard container



➤ **The maximum height for a pallet when using a standard 40 ft container is 1100MM!**

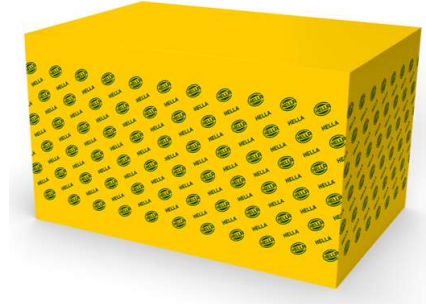
HELLA material number	Outer dimensions (mm) Length x Width x Height	Net weight (G)	No. of boxes (Pcs.)		No. of layers Euro pallet	No. of layers Industrial pallet	Max Pallet height (MM)
			Euro.	Indu.			
487.069-05	397 x 298 x 187	437	40	50	5 layers at 8 units	5 layers at 10 units	1100
487.068-05	397 x 298 x 223	506	32	40	4 layers at 8 units	4 layers at 10 units	
487.067-05	398 x 298 x 277	475	24	30	3 layers at 8 units	3 layers at 10 units	

Container type	Possible euro pallets	Possible industrial pallets
40 feet standard container	23-24 pallets (unstacked) 46-48 pallets (stacked)	20-21 pallets (unstacked) 40-42 pallets (stacked)

Important: Every layer is to be separated by an intermediate layer. Every container is to have a cover frame.

7.3 Special dispatch boxes (dispatch box = product box)

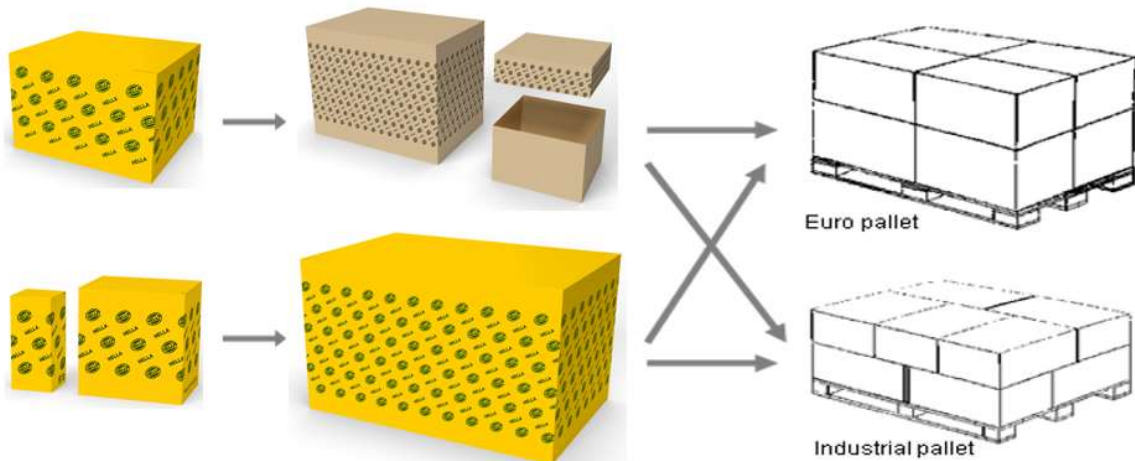
→ Special boxes are always VPK



HELLA material number	Inner Dimensions			Net weight (G)	Design / FEFCO	Quality / Requirement	Material	Label
Length	Width	Height						
487 070-05	289	250	252	436	FAEF0201	2.30 C	W	75x 50
487 065-05	483	283	247	700	FAEF0201	2.30 C	W	75x 50
487 062-05	570	230	180	529	FAEF0201	-	W	75x100
487 063-05	583	251	245	653	FAEF0201	2.30 C	W	75x 50
487 061-05	583	383	247	773	FAEF0201	2.30 C	W	75x 50
487 060-05	583	383	335	1081	FAEF0201	-	W	75x100
486 040-93	735	380	335	1230	FAEF0201	-	W	75x100
486 040-88	740	285	243	853	FAEF0201	-	W	75x100
487 064-00	780	155	170	682	-	-	W	75x 50
487 042.05	786	385	335	1280	FAEF0201	-	W	75x100

7.3.1.1 Pallet loading for special boxes

The HELLA packaging system is designed for the optimal use of Euro pallet sizes and industrial pallet dimensions.



Important: In case that the supplier is using their own cardboard boxes, they have to optimize them for the usage on standard pallets (1200x800 and 1200x1000 mm).

Pallet loading for Trucks



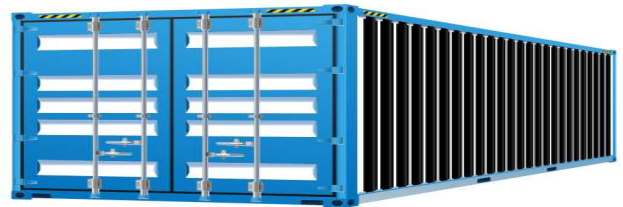
➤ **The maximum height for a pallet when using a 40 tons truck is 1240MM!**

HELLA material number	Outer Dimensions (mm) Length x Width x Height	Net weight (G)	No. of boxes (Pcs.) Euro. Indu.		No. of layers Euro pallet	No. of layers Industrial pallet	Max. Pallet height (MM)
487 070-05	294 x 265 x 282	436	36	-	3 layers at 12 units	-	1240
487 065-05	497 x 298 x 275	700	18	24	3 layers at 6 units	3 layers at 8 units	
487 062-05	585 x 245 x 210	529	-	40	-	5 layers at 8 units	
487 063-05	597 x 266 x 275	653	18	-	3 layers at 6 units	-	
487 061-05	597 x 397 x 277	773	12	15	3 layers at 4 units	3 layers at 5 units	
487 060-05	597 x 397 x 365	1081	12	15	3 layers at 4 units	3 layers at 5 units	
486.040-93	740 x 385 x 345	1230	9	-	3 layers at 3 units	-	
486.040-88	745 x 290 x 255	853	16	-	4 layers at 4 units	-	
487.064-00	795 x 170 x 200	682	35	-	5 layers at 7 units	-	
487.042-05	800 x 400 x 365	1280	9	-	3 layers at 3 units	-	

Truck type	Possible euro pallets	Possible industrial pallets
40 tons standard Truck	34 pallets (unstacked) 68 pallets (stacked)	26 pallets (unstacked) 52 pallets (stacked)

Important: Every layer is to be separated by an intermediate layer. Every container is to have a cover frame.

Pallet loading for standard container



➤ **The maximum height for a pallet when using a standard 40ft container is 1100MM!**

HELLA material number	Outer Dimensions (mm) Length x Width x Height	Net weight (G)	No. of boxes (Pcs.) Euro. Indu.		No. of layers Euro pallet	No. of layers Industrial pallet	Max. Pallet height (MM)
487 070-05	294 x 265 x 282	436	36	-	3 layers at 12 units	-	1100
487 065-05	497 x 298 x 275	700	18	24	3 layers at 6 units	3 layers at 8 units	
487 062-05	585 x 245 x 210	529	-	32	-	4 layers at 8 units	
487 063-05	597 x 266 x 275	653	18	-	3 layers at 6 units	-	
487 061-05	597 x 397 x 277	773	12	15	3 layers at 4 units	3 layers at 5 units	
487 060-05	597 x 397 x 365	1081	8	10	2 layers at 4 units	2 layers at 5 units	
486.040-93	740 x 385 x 345	1230	6	-	2 layers at 3 units	-	
486.040-88	745 x 290 x 255	853	12	-	3 layers at 4 units	-	
487.064-00	795 x 170 x 200	682	28	-	4 layers at 7 units	-	
487.042-05	800 x 400 x 365	1280	6	-	2 layers at 3 units	-	

Container type	Possible euro pallets	Possible industrial pallets
40 feet standard container	23-24 pallets (unstacked) 46-48 pallets (stacked)	20-21 pallets (unstacked) 40-42 pallets (stacked)

Important: Every layer is to be separated by an intermediate layer. Every container is to have a cover frame.

8 Label

8.1 Label size and use

Three label sizes have been defined for the different packaging variants. Their use is based on the dimensions of the product/dispatch boxes and their requirements. An appropriate classification of the labels to be used, can be found in the tables of the module systems.

Labels are always placed along the positioning line printed on the product box or on the dispatch box.

Label size I:	75 mm x 50 mm, HELLA material number 824.008-18M (standard) and 824.008-36M (opaque)
Use:	Product boxes, dispatch boxes
Label size II:	60 mm x 27 mm, HELLA material number 824.009-68M (standard) and 824.008-37M (opaque)
Use:	Product boxes
Label size III:	75 mm x 100 mm, HELLA material number 824.009-93M (standard) and 824.008-37M (opaque)
Use:	Product boxes
Label size IV:	95,3 mm x 38,1 mm, HELLA material number 824.009-48M (standard)
Use:	Product boxes, dispatch boxes for SOE only type of products

8.2 Blank label material



Product:	Adhesive labels
Design:	HKS 4, yellow, printed with special color
Material:	Adhesive paper Chromo white, Raflacoat RP 51 permanent glue
Print:	thermotransfer print, black

Adhesive labels

Please ask at the central HELLA Purchasing Dept. for contract suppliers.

8.3 Label design, label I: 75 mm x 50 mm for product boxes and dispatch boxes



8.4 Label design, label II: 60 mm x 27 mm for product boxes IAM yellow



Important: EAN codes are created exclusively by HELLA GmbH & Co. KGaA and also by some HELLA subsidiaries. Any deviations must be expressly approved by the central HELLA packaging planning department in the Aftermarket and SOE business divisions.

8.5 Label design, label III: special solution 75 mm x 100 mm

For vehicle-specific applications when development / production is executed by supplier (not HELLA):

- Headlamps / headlamp inserts
- Rear combination lamps
- Direction indicators
- Vehicle-specific fog lamps
- Light housing
- Cover lens

Vehicle-specific accessories without designed packaging or designed label:

- Upgrade headlamps
- Upgrade rear combination lamps
- Reversing lights
- Direction indicators
- Vehicle-specific fog lamps
- Daytime running lights
- Light housing



Important: The pictograms required are provided in a suitable file format. Please contact your product manager following consultation with HELLA Marketing. Additional obligatory pictograms/safety symbols can be created individually.

Sales texts are based on TEC-Doc and provided by the product manager if they cannot be taken from the system independently. **Only these sales texts are binding!**

The article name must be specified in the four languages listed and in the given order (German, English, French, Spanish). If country-specific special solutions are required, these must be created by means of an additional label. Exceptions must be expressly approved by the central HELLA packaging planning department in the Aftermarket and SOE business divisions. Vehicle data always without year of construction details.

8.6 Label design, label IV: 95,3 mm x 38,1 mm for product boxes, dispatch boxes for SOE only type of products



Important: This type of label does not have an EAN code. The supplier has to use a barcode with material number and quantity. Any deviations must be expressly approved by the central HELLA packaging planning department in the Aftermarket and SOE business divisions.

8.7 Label Position

Labels are positioned by the bar or the bottom right of the narrow side. This is located on the lid or on the narrow side of the packaging.



Label position on lid



Label position on narrow side

Important: A special solution, e.g. additionally required labels, must be approved by the central HELLA packaging planning department in the Aftermarket and SOE business divisions.

9 Packaging data sheet for packaging material

- A fully completed packaging data sheet is required as documentation of the packaging and incoming goods inspection.

The HF-5532_GH form can be downloaded from the HELLA NormMaster or can be requested from the product manager responsible. The packaging data sheet agreed between the supplier and product manager has to be available at the start of the product or workflow launching at the very latest.

The packaging data sheet is basically subdivided in 3 topics

- 1.General information e.g. date, article dimensions, pallet dimensions, UOMs, weight

HELLA		Hella KGAA Hueck & Co.		Formular 5532		Date: _____	
Packaging Data Sheet						Sheet: _____ of: _____	
Packaging:							
Name: _____		Article dimensions:		Length: _____ mm			
Reference number: _____				Width: _____ mm			
Status / Date: _____ / _____				Height: _____ mm			
		Net weight:		Gram: _____			
Trade-unit structure:							
Packaging size: Please list the components that comprise the trade unit of the loading unit. The packed sales items (VA) / units are counted here				Note: Please fill in complete data when using non-Hella packaging. Overwrite Excel phrases.			
1	Packaging size Small (VPK)	VPK	1	No. Hella folding box or dispatch box	Number of sales items	Length: _____ mm	Width: _____ mm
2	Packaging size Large (VPG)	VPG	2	No. Hella dispatch box	Number of sales items	Length: _____ mm	Width: _____ mm
3	Packaging size Layer (VPL)	VPL	3	No. Hella pallet	Number of sales items	Length: _____ mm	Width: _____ mm
4	Packaging size Pallet (VPP)	VPP	4	No. Hella pallet	Number of sales items	Length: _____ mm	Width: _____ mm
Notes on packaging size: Packaging size Small (VPK): Smallest packed sales unit. Packaging size Large (VPG): Combination of several VPKs, for example in one dispatch box. Packaging size Layer (VPL): Quantity of sales items in one complete Layer on the pallet. Packaging size Pallet (VPP): Maximum quantity of sales items / unit on the pallet.							

- 2.Outer and inner packaging of boxes e.g. inner box, outer box, packaging aids inside.

Product and shipment cardboard packaging:								
Please list which packaging is used in what quantity for each load unit.								
	Hella. no. and/or..	Cardboard packaging name	Net weight packaging in gram	Number per loading unit	M = returnable E = non-returnable	Length: _____ mm	Width: _____ mm	Height: _____ mm
1	please fill in	please fill in	please fill in			please fill in	please fill in	please fill in
2	please fill in	please fill in	please fill in			please fill in	please fill in	please fill in
3								
Inner packaging:								
Please list which packaging aids are used in which quantities per load unit. (PE bags, bubble wrap, compartment dividers etc.)								
	Hella. no. and/or..	Packaging name	Net weight packaging in gram	Number per loading unit	Only for VPK (Data for REA)	M = returnable E = non-returnable	Length: _____ mm	Width: _____ mm
1					☐			
2					☐			
3					☐			
4					☐			
5					☐			
6					☐			

3. The loading unit, the used packaging aids and the description e.g. europallet, cover, corners

Loading unit:								
Please list which loading unit is used. (e.g. Euro pallet)								
	Hella. no. and/or..	Loading unit name	Net weight Loading unit in gram	Number per loading unit	M = returnable E = non-returnable	Length: _____ mm	Width: _____ mm	Height: _____ mm
1	please fill in	please fill in	please fill in			please fill in	please fill in	please fill in
Packaging aids:								
Please list which outer packaging aids are used in which quantities per loading unit. (e.g. intermediate layer, frames)								
	Hella. no. and/or..	Packaging name	Net weight packaging in gram	Number per loading unit	M = returnable E = non-returnable	Length: _____ mm	Width: _____ mm	Height: _____ mm
1								
2								
3								
4								
Packaging description:								
Description, photo/sketch of the loading unit:								
remark:								

9.1 Example 1 → Good filled PDS with Hella packaging

The first part of the PDS is all filled in correctly, it is mandatory for calculation to have **all UOMs** filled.

Important: For the calculation of the height for VPL and VPP it is as following:

VPL → Height of the VPG (275MM) +150MM = **425MM**

VPP → Height of the VPG (275MM) * no. of layers (3) +150MM = **975MM**

Hella KGaA Hueck & Co. Date: 11.05.2022
Formular 5532 Sheet: 1 of 1

Packaging Data Sheet

Name: Headlight Audi example 1
Reference number: xxx-xxx-xxx
Status / Date: Finished / 21.07.2022

Article dimensions: Length: 120 mm, Width: 40 mm, Height: 85 mm
Net weight: Gram: 100

Trade-unit structure:
Packaging size: Please list the components that comprise the trade unit of the loading unit. The packed sales items (VA) / units are counted here.

Note: Please fill in complete data when using non-Hella packaging. Overwrite Excel phrases.

No.	Packaging size	VPK	No. Hella folding box or dispatch box	Number of sales items	Length	Width	Height
1	Packaging size Small (VPK)	VPK	485.186-50	1	125 mm	46 mm	92 mm
2	Packaging size Large (VPG)	VPG	487.067-05	45	397 mm	298 mm	275 mm
3	Packaging size Layer (VPL)	VPL	480.009-02	360	1200 mm	800 mm	425 mm
4	Packaging size Pallet (VPP)	VPP	480.009-02	1080	1200 mm	800 mm	975 mm

The PN and description of the article is filled in correctly

The dimensions of the article and the weight is filled in correctly

The UOMs are also filled in correctly. This includes the VPK the VPG the VPL and VPP

The second part filled in correctly

Product and shipment cardboard packaging:
Please list which packaging is used in what quantity for each load unit.

No.	Hella. no. and/or...	Cardboard packaging name	Net weight packaging in gram	Number per loading unit	M = returnable E = non-returnable	Length	Width	Height
1	485.186-50	Faltbodenschachtel	20	1080	E	125 mm	46 mm	92 mm
2	487.067-05	Versandschachtel	561	24	E	397 mm	298 mm	275 mm
3						mm	mm	mm

Inner packaging:
Please list which packaging aids are used in which quantities per load unit. (PE bags, bubble wrap, compartment dividers etc.)

Note: If shipping cartons Hella-D (Packaging guideline p. 10 chapter 2.3.3) or non-Hella packaging are used the supplier will approve that the inner packaging protects the product according to drop test DIN ISO 22248 criteria.

No.	Hella. no. and/or...	Packaging name	Net weight packaging in gram	Number per loading unit	Only for VPK [Data for REA]	M = returnable E = non-returnable	Length	Width	Height
1	487.360-13	Air bubble film	48	24		E	750 mm	580 mm	10 mm
2	487.207-00	PE-BEUTEL A=185X270X0.03	3	1080		E	270 mm	185 mm	0.04 mm
3	486.022-47	ZWISCHENLAGE 388X283	44.0625	24		E	380 mm	283 mm	3 mm
4							mm	mm	mm

Inner and outer boxes are filled in correctly including no. per loading unit, dimensions and weight

The packaging aids are filled in correctly including weight, no. per loading unit and dimensions

The third part is filled in correctly too

Important: The description and inner pictures of the product box are not mandatory but when filled in it is possible to check for the used boxes and optimize them to prevent too much air and less cover inside

Loading unit:
Please list which loading unit is used. (e.g. Euro pallet)

No.	Hella. no. and/or...	Loading unit name	Net weight Loading unit in gram	Number per loading unit	M = returnable E = non-returnable	Length	Width	Height
1	480.009-02	Europalette	5000	1	E	1200 mm	800 mm	126 mm

Packaging aids:
Please list which outer packaging aids are used in which quantities per loading unit. (e.g. intermediate layer, frames)

No.	Hella. no. and/or...	Packaging name	Net weight packaging in gram	Number per loading unit	M = returnable E = non-returnable	Length	Width	Height
1	487.500-04	EINLAGE GERILLT A=1080X1200	620.7715134	3	E	1200 mm	1080 mm	3 mm
2	480.010-11	please fill in	3000	1	E	1200 mm	800 mm	35 mm
3						mm	mm	mm
4						mm	mm	mm

Packaging description:
1 pc. put on PE bag and packed in the inner box.
45 inner boxes packed into outer box.
8 outer boxes packed onto 1 layer.
3 layers onto a pallet.
every layer is separated with a oneway layer and a wood cover on top.

Description, photo/sketch of the loading unit:

Put in inner pictures of product box here

Remark: In special and urgent cases using returnable pallet (477 200-00) is allowed. PM agreed

Used pallet is filled in including weight, no. per loading unit and dimensions

The packaging aids for loading unit are correctly filled in including weight, no. per loading unit and dimensions

The packaging description is written properly, a remark (if existing) is filled in and photos of inner product box are added as well

9.2 Example 2 → Good filled PDS without Hella packaging

The first part of the PDS is all filled in correctly, if not using HELLA packaging use “supplier box” as mat. no. It is mandatory for calculation to have **all UOMs** filled.

Important: For the calculation of the height for VPL and VPP it is as following:

VPL → Height of the VPG (275MM) +150MM = **425MM**

VPP → Height of the VPG (275MM) * no. of layers (3) +150MM =**975MM**

HELLA Hella KGaA Hueck & Co. Date: 11.05.2022
Packaging Data Sheet Formular 5532 Sheet: 1 of 1

Packaging:
Name: example 2 Audi
Reference number: xxx.xxx-xxx
Status / Date: Finished / 21.07.2022

Article dimensions: Length: 120 mm, Width: 40 mm, Height: 85 mm
Net weight: Gram: 100

Trade-unit structure:
Packaging size: Please list the components that comprise the trade unit of the loading unit. The packed sales items (VA) / units are counted here.
Note: Please fill in complete data when using non-Hella packaging. Overwrite Excel phrases.

		No. Hella folding box or dispatch box	Number of sales items	Length	Width	Height
1	Packaging size Small (VPK)	1	1	125 mm	46 mm	92 mm
2	Packaging size Large (VPG)	2	45	397 mm	298 mm	275 mm
3	Packaging size Layer (VPL)	3	360	1200 mm	800 mm	425 mm
4	Packaging size Pallet (VPP)	4	1080	1200 mm	800 mm	975 mm

The PN and description of the article is filled in correctly

The dimensions of the article and the weight is filled in correctly

The UOMs are also filled in correctly. This includes the VPK, the VPG, the VPL and the VPP

The second part filled in correctly

Product and shipment cardboard packaging:
Please list which packaging is used in what quantity for each load unit.

	Hella. no. and/or..	Cardboard packaging name	Net weight packaging in gram	Number per loading unit	M = returnable E = non-returnable	Length	Width	Height
1		Inner supplier box	20	1080	E	125 mm	46 mm	92 mm
2		Outer supplier box	561	24	E	397 mm	298 mm	275 mm
3						mm	mm	mm

Inner packaging:
Please list which packaging aids are used in which quantities per load unit. (PE bags, bubble wrap, compartment dividers etc.)
Note: If shipping cartons Hella-D (Packaging guideline p. 10 chapter 2.3.3) or non-Hella packaging are used the supplier will approve that the inner packaging protects the product according to drop test DIN ISO 22248 criteria.

	Hella. no. and/or..	Packaging name	Net weight packaging in gram	Number per loading unit	Only for VPK (Data for REA)	M = returnable E = non-returnable	Length	Width	Height
1		Air bubble film	48	24		E	750 mm	580 mm	10 mm
2		PE-bag	3	1080		E	270 mm	185 mm	0.04 mm
3		Intermediate layer	44	24		E	380 mm	283 mm	3 mm
4							mm	mm	mm
5							mm	mm	mm
6							mm	mm	mm

Inner and outer boxes are filled in correctly including no. per loading unit, dimensions and weight

The packaging aids are filled in correctly including weight, no. per loading unit and dimensions

The third part is filled in correctly too

Important: The description and inner pictures of the product box are not mandatory but when filled in it is possible to check for the used boxes and optimize them to prevent too much air and less cover inside

Loading unit:
Please list which loading unit is used. (e.g. Euro pallet)

	Hella. no. and/or..	Loading unit name	Net weight Loading unit in gram	Number per loading unit	M = returnable E = non-returnable	Length	Width	Height
1	480 009-02	Europalette	5000	1	E	1200 mm	800 mm	126 mm

Packaging aids:
Please list which outer packaging aids are used in which quantities per loading unit. (e.g. intermediate layer, frames)

	Hella. no. and/or..	Packaging name	Net weight packaging in gram	Number per loading unit	M = returnable E = non-returnable	Length	Width	Height
1		Oneway layer	620	3	C	1200 mm	1080 mm	3 mm
2		Woodcover	3000	1	E	1200 mm	800 mm	35 mm
3						mm	mm	mm
4						mm	mm	mm

Packaging description:
1 pc put on PE bag and packed in the inner box.
45 inner boxes packed into 1 outer box.
8 outer boxes packed onto 1 layer.
3 layers onto a pallet.
every layer is separated with a oneway layer and a wood cover on top

Description, photo/sketch of the loading unit:
Put in inner pictures of product box here

remark: In special and urgent cases using returnable pallet (477 200-00) is allowed. PM agreed

Used pallet is filled in including weight, no. per loading unit and dimensions

The packaging aids for loading unit are correctly filled in including weight, no. per loading unit and dimensions

The packaging description is written properly, a remark (if existing) is filled in and photos of inner product box are added as well

9.3 Example 3 → Bad filled PDS with insufficient informations

The first part of the PDS is missing a lot of mandatory informations, which makes it impossible to proceed with tasks.

HELLA Hella KGaA Hueck & Co. Formula 5532

Date: 11.05.2022 Sheet: 1 of 1

Packaging:

Name: example 3 Audi Supplier

Reference number:

Status / Date: Finished / 21.07.2022

Article dimensions: Length: mm Width: mm Height: mm

Net weight: Gram:

Trade-unit structure:

Packaging size: Please list the components that comprise the trade unit of the loading unit. The packed sales items (VA) / units are counted here

Note: Please fill in complete data when using non-Hella packaging. Overwrite Excel phrases.

			No. Hella folding box or dispatch box	Number of sales items	Length	Width	Height
1	Packaging size Small (VPK)	VPK	1	1	125 mm	46 mm	92 mm
2	Packaging size Large (VPG)	VPG	2	45	397 mm	298 mm	275 mm
3	Packaging size Layer (VPL)	VPL	3		mm	mm	mm
4	Packaging size Pallet (VPP)	VPP	4		mm	mm	mm

The PN is missing but at least the description is correct

The dimensions and weight of the article are not filled

The UOMs are not properly filled.
1. material no. for VPK and VPG is missing
2. the VPL and VPP are not filled

The second part is missing mandatory informations, so here are almost no useful informations and a proceeding with tasks is not possible

Product and shipment cardboard packaging:

Please list which packaging is used in what quantity for each load unit.

	Hella. no. and/or...	Cardboard packaging name	Net weight packaging in gram	Number per loading unit	M = returnable E = non-returnable	Length	Width	Height
1		Product box	please fill in			125 mm	46 mm	92 mm
2		Shipping box	please fill in			397 mm	298 mm	275 mm
3						mm	mm	mm

Inner packaging:

Please list which packaging aids are used in which quantities per load unit. (PE bags, bubble wrap, compartment dividers etc.)

Note: If shipping cartons Hella-D (Packaging guideline p. 10 chapter 2.3.3) or non-Hella packaging are used the supplier will approve that the inner packaging protects the product according to drop test DIN ISO 22248 criteria.

	Hella. no. and/or...	Packaging name	Net weight packaging in gram	Number per loading unit	Only for VPK (Data for REA)	M = returnable E = non-returnable	Length	Width	Height
1		Air bubble film				E	mm	mm	mm
2		PE-bag				E	mm	mm	mm
3		Intermediate layer				E	mm	mm	mm
4							mm	mm	mm
5							mm	mm	mm
6							mm	mm	mm

For Product and shipping box weight and no. per loading unit is missing.

Packaging aids are missing informations. Net weight, no. per loading unit and dimensions are not filled in.

The third part is missing mandatory informations as well, so again a proceeding with tasks is not possible

Loading unit:

Please list which loading unit is used. (e.g. Euro pallet)

	Hella. no. and/or...	Loading unit name	Net weight Loading unit in gram	Number per loading unit	M = returnable E = non-returnable	Length	Width	Height
1	0	Euro pallet	5000			1200 mm	800 mm	126 mm

Packaging aids:

Please list which outer packaging aids are used in which quantities per loading unit. (e.g. intermediate layer, frames)

	Hella. no. and/or...	Packaging name	Net weight packaging in gram	Number per loading unit	M = returnable E = non-returnable	Length	Width	Height
1		Oneway layer			E	1200 mm	1080 mm	3 mm
2		Woodcover			E	1200 mm	800 mm	35 mm
3						mm	mm	mm
4						mm	mm	mm

Packaging description:

Description, photo/sketch of the loading unit:

Remark:

1. No used pallet is filled, just the description which makes it hard to know if it is a reusable or oneway pallet
2. no. per loading unit is missing

1. The packaging aids have no weight
2. the no. per loading unit is missing

1. The packaging description is missing
2. No remark (if exists)
3. no photos inserted

9.4 Consequences for insufficient Packaging master data

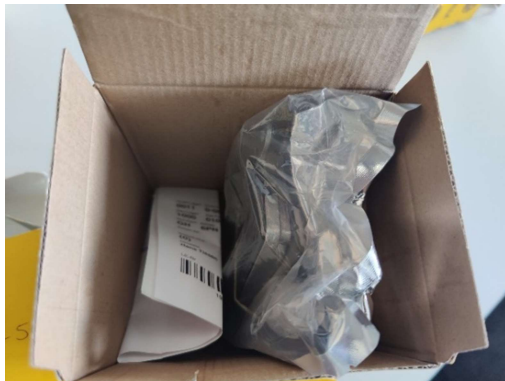
- *In general wrong or missing informations from the PDS are leading to a lot of extra effort for everyone and stopping Workflows from proceeding.*

In addition to that insufficient master data leads to further Consequences in almost every departments:

1. Without good Packaging master data the replenishment quantity for Sales companies cannot be calculated accordingly.
2. The storage cannot be used optimized due to wrong used storing places e.g. a 0,9m pallet is stored in 1.2m storing places
3. The picking process has additional effort because the used shipping box was based on dimensions of master data but the data is wrong so we need more effort and more shipping boxes
4. The quantity of a VPG has changed but no new PDS was released so we ship too much or too less quantities to our customer and receive reclamations
5. The sales unit based on master data is wrong and we are not able to sell the right amount to our customer and may lose the customer.

...and so on

Too much air in product box



A single box in a too large shipping box



Same device perfectly fits



A “full” pallet which could be optimized



Important: By having photos of finished packed examples from the supplier we could prevent those situations

10 Contact person

Central Packaging Planning Aftermarket

Realisation and Performance - SOE-LOR

Iulia Elisabeta-Popoviciu
E-Mail: iuliaelisabeta.popoviciu@hella.com

Central Packaging Planning Aftermarket

Realisation and Performance - AM-LOR

Hans Tissen
Tel.: + 49 (0) 2941 38 1723
Mob.: +49 (0) 160 2651042
E-Mail: hans.tissen@forvia.com

IAM Marketing - Communication Concepts IAM

Silvia Wegner
Tel.: + 49 (0) 2941 38 7555
Mob:+49 (0) 173 7439843
E-Mail: silvia.wegner@hella.com

11 Changes since the previous version

Added label and positioning (8.6 ; 8.7); added SOE business division.

Modified – Contact person (10)

Added label size IV at 8.1

Changed designer of HN and PDE of the related process

7.1.2. Dispatch boxes in module system I: before: slip lid 3 times listed up, now: only one time.

7.1.1 added description → *Product boxes are always VPK*

7.1.2 added description → *Dispatch boxes are always VPG*

7.1.3 added description → *Describes how much Product boxes fit into the different variants of dispatch boxes*

7.1.3 added title in table “Small box” “Middle box” and “Big box”

7.1.3 added Net weight in the table and changed Dimensions from “A” to “O”

7.2 added description → *Product boxes are always VPK*

7.2.2 added description → *Dispatch boxes are always VPG*

Page 15: 7.2.3 added description → *Describes how much Product boxes fit into the different variants of dispatch boxes*

Added 6.3 (Packaging aids)

Added 7.1.4 (Pallet loading for module system I)

Added 7.3 (Special dispatch boxes)

Added 7.3.1 (Pallet loading for special dispatch boxes)

Added 8.6 (Label design, label IV: 95,3 mm x 38,1 mm for product boxes, dispatch boxes for SOE only type of products)

Added 8.7 (Label position)

Removed point 8 (pallet loading)

7.1 Changed Dimensions and added net weight in

7.1.2 Changed dimensions in

7.2.1 Changed dimensions and added net weight

7.2.2 Changed dimensions and added net weight

7.2.3 Changed dimensions and added net weight also added "Small Box", "Middle Box", "Big Box"

Added 7.2.4 (Pallet loading for module system II)

9. Changed the description

Added 9.1 (Example 1)

Added 9.2 (Example 2)

Added 9.3 (Example 3)

Added 9.4 (Consequences)