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Change description		I	
Change reference			

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Template id: /01

Rev.	Description	Created on (dd/mm/yy)	Changed by	Signature approver
02	New appendix 8.10 for Trade products	14/09/2018	RMM	

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1 Purpose

- o BDR wants a lean industry standard for packaging and labelling of components to allow an efficient process from collection at a supplier to point of consumption in our manufacturing plants
- The below documentation is to highlight the minimum requirements, however as part of the implementation process BDR Thermea will require both the GTIN and BDR Thermea part numbers. Our aim in to receive ASN (Advanced shipping notification) electronically. If this is not possible then the additional information described below must be included on relevant labels and documents

2 Scope

This document is dealing with the labelling and packaging of pallets and boxes of components being delivered to BDR sites. This also covers the Shipping paperwork.

This document is to be applied for all NPD projects.

This Specification DOES NOT deal with the identification of individual items.

This Specification DOES NOT deal with the CMR/paperwork created for transport providers.

2.1. References

The following table summarizes the documents referenced in this document.

Document number	Document name	Description document	Location

3 Definitions, Acronyms and Abbreviations

Definition, acronym or abbreviation	Description
ASN	Advanced Shipping Notice
SSCC	Serial Shipping Container Code
GTIN	Global Trade Identification Number (This supersedes EAN)
GS1	is a global organization dedicated to the design and
(http://www.gs1.org/standards)	implementation of global standards and solutions
Guideline	An advice on captured knowledge
Rule	A rule that has to be applied.
Q	Quality
Dunnage	is the name for the materials used in holds and containers to
	protect goods and their packaging from moisture, contamination
	and mechanical damage

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4 Shipping documentation, labelling and barcode Rules

4.1. Delivery/Shipment Documentation

Delivery Paperwork with the shipment details should be sent at the point of despatch to your BDR order placement contact and the goods in department as part of the booking in procedure. All documentation should also be presented with the delivery of the shipment. The Paperwork must contain the following information:

- Delivery name and address
- Supplier name and address
- Shipped date and delivery date
- The total number of pallets on the shipment
- Name of carrier
- Individual line item information containing the following:
 - o BDR Order number
 - BDR Order line number
 - Supplier order number
 - o BDR item number and description
 - o Total quantity delivered with unit of measure
 - o Suppliers Delivery Note / Packing Slip Number

An example of a Shipment/Delivery Manifest can be found in Appendix A

4.2. Barcode

Identification to Code 128 Format is required on all boxes and packaging.

4.3. Pallet identification

When the data is transferred with an ASN, a handling unit id, or SSCC must be attached on to the outside of each pallet in line with GS1. **If no** ASN is provided each pallet must be labelled and bar coded with the following information:

- BDR purchase order number Barcoded
- BDR purchase order line number
- BDR part number and Description Barcoded
- Pallet quantity Barcoded
- Number of Cartons (if applicable)
- Pallet number
- Suppliers Delivery Note / Packing Slip Number
- Supplier code
- Supplier name

The identification on the label must be readable from a distance of 5 meters.

An example of a Pallet Manifest can be found in Appendix B

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(Note: where multiple barcodes appear on the document, a minimum of 20mm space should be left on all sides to help prevent miss-scanning.)

4.4. Container labelling

Each individual container should have at least two labels, one on the front and one on the side with the label visible on the outside of the pallet. If the label is on returnable packaging, this must be placed into the correct holder and NO adhesive should be used. The label should comply to GS1 standards but must contain as a minimum the following information:

- BDR Item number Barcoded
- Description
- Container quantity Barcoded
- Batch Number
- Supplier Name
- Supplier code
- Manufacture date

Examples of a Container labels can be found in Appendix C

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5 Quality Rules

5.1. Condition of the received goods

No effects of moisture, contamination or physical damage should be evident on the components contained inside the packaging. This requirement is also extended to the outer part of the packaging and pallet. The individual boxes / packs can be shrink wrapped or bonded but must be retained to prevent movement on the pallet during the transportation to the BDR site. No titling or collapsing of Boxes/containers should be evident.

5.2. Delivery

The products will usually be removed from the back delivery vehicle by fork lift or electric pallet truck. If the delivery has pallets stacked more than one pallet high, then separation of this would be required to fit into the storage areas. The wrapping, labelling and the quantities should allow for this.

If a pallet is not to be stacked, this should be clearly labelled so.

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6 Packaging Rules and Guidelines

6.1. Pallet Rules

Product must be delivered on pallets suitable for transportation and storage. Product must be supplied on either of the following pallets

- 1. Standard 4 way UK pallet 1200mm x 1000mm
- 2. Standard Euro Pallet 1200mm x 800mm

The pallet must to suitable to handle the weight of the current full pallet without any damage

6.2. Volumetric information for pallets and containers

Product where possible should be delivered in 6 varying types of container as outlined below:

Container Size	Length (mm)	Depth (mm)	Max height(mm)
Full Pallet (UK)	1200	1000	1200 (including pallet)
Full Pallet (Euro)	1200	800	1200 (including pallet)
Half pallet	600	800	1200 (including pallet)
Large Container	600	400	250
Medium Container	400	300	250
Small Container	300	200	250

The maximum height of the container may vary depending on the nature of the product but must ensue that the maximum utilisation of the pallet space is achieved. Orientation of how cartons are to be stacked on a pallet can be seen in appendices D_{1+2}

Small, Medium and Large containers must weigh less than 10kg, and no more than 10kg. Small, Medium and Large containers dimensions have a tolerance of +0%, -10%.

The choice of packaging is always determined in consultation with BDR Thermea and cannot be changed without approval. The Material must be presented in a way that supports BDRT production and it is the responsibility of the supplier to ensure this standard is maintained. Dunnage and separating solutions can also be designed to allow for the most efficient way to ship the items. (For example pallet boxes, with separators)

If returnable packing is to be used, the same box dimensions listed above must be maintained.

Please see appendix E₁₊₂ for the reusable packaging and container right sizing decision flow charts respectively. However, common sense must be applied to find a cost efficient and standard solution. Before completing, other BDR packaging solutions for each supplier must be understood and where possible replicated to simplify supply.

6.3. Stacking of pallets

All product delivered into BDR Thermea must adhere to the description highlighted in appendix F.

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7 Operations Rule governance, change management and approval

Appendix G should be used in conjunction with the supplier to ensure this Operations rules has been understood and will be adhered to for each supplier partnership across BDRT.

The Operations Rule will be reviewed annually / if necessary by the owner and approved by the Management Board. Changes will be clearly communicated to keep employees in all Group companies updated on such changes. This Operations Rule is stored in Quickr.....(to be determined)

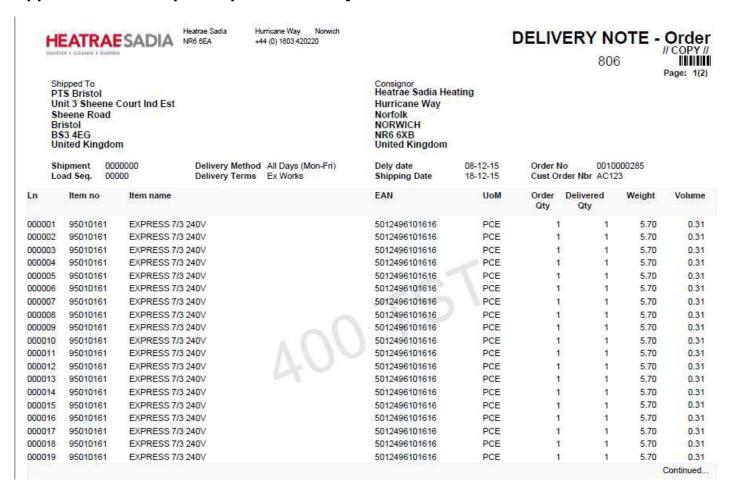
A revisions table (see below) is included to record all revisions and changes to this policy, when they occurred and the name and signature of the approver.

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8 Appendices

8.1. Appendix A - Example Shipment/Delivery Manifest



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8.2. Appendix B - Pallet Manifest

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Delivery note number

Supplier Code Supplier name

Pallet 1 of 3

Order Number Line	Item Number Description	Number of Cartons	Quantity	
1700001 100	12345 Item 1 description	5		50
1700001 200	123456 Item 2 description	10		250

Handling unit id (SSCC Code)



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8.3. Appendix C Examples of Carton and Crate Labels

8.3.1 Example Carton Label

Item

12345



Description

Item 1 Description

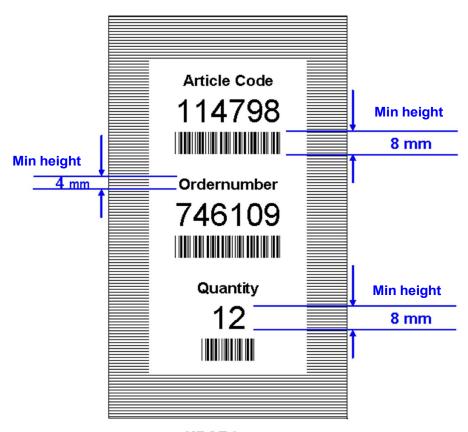
Carton Quantity

10 Marie Batch Number

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Supplier Name Supplier Code Manufacture Date

8.3.2 Example Returnable Crate Label with sizing requirements



KRAT-kaart max 140 x 90 mm vrije rand van 15mm info kader = 110x60mm

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8.4. Appendix D₁ – Euro pallet packaging

8.4.1 Large container Stacking requirement on a Euro Pallet

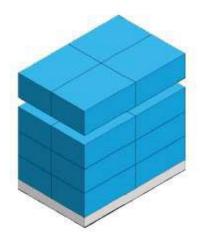
3D view

Details

Package size: 600 x 400 x 250 mm

Pallet: 1200 x 800mm

n packages: 16
n layers: 4







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8.4.2 Medium Container Stacking Requirement on Euro Pallet

3D view

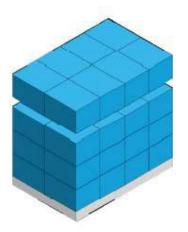
Details

Package size: 400 x 300 x 250 mm

Pallet: 1200 x 800mm

n packages: 32

n layers:







8.4.3 Small Container Stacking Requirement on a Euro Pallet

3D view

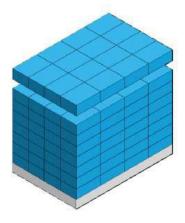
Details

Package size: 300 x 200 x 115 mm

Pallet: 1200 x 800mm

n packages: 128

n layers: 8



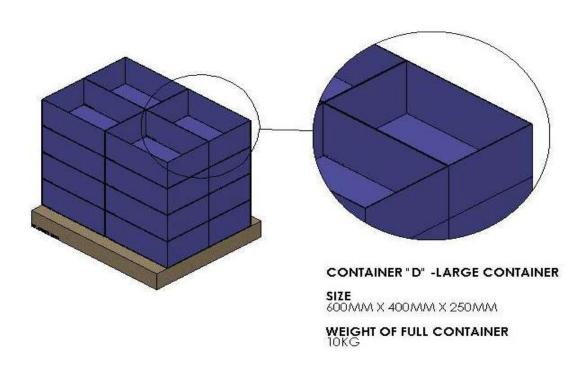


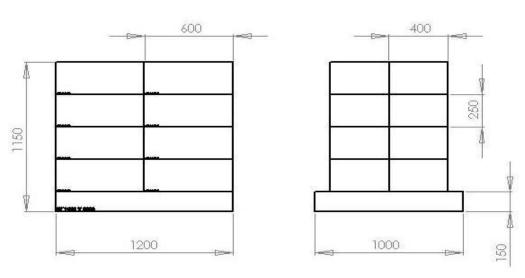


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8.5. Appendix D₂ – UK pallet packaging

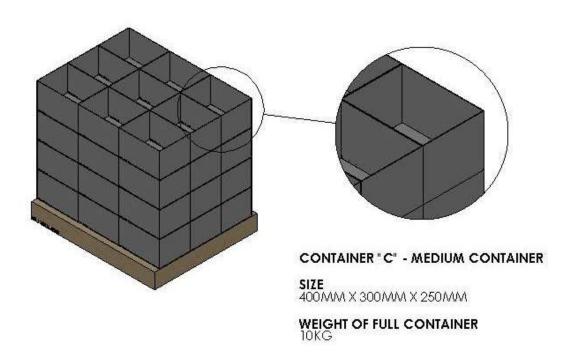
CONTAINER "D" - LARGE CONTAINER ON A UK PALLET

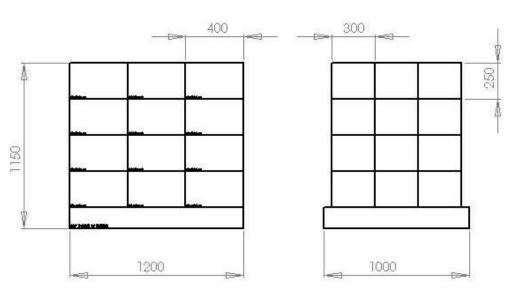




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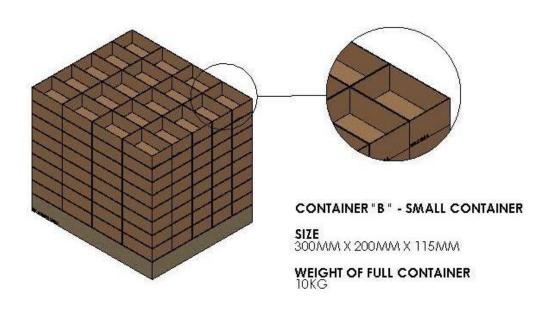
CONTAINER "C" - MEDIUM CONTAINER ON A UK PALLET

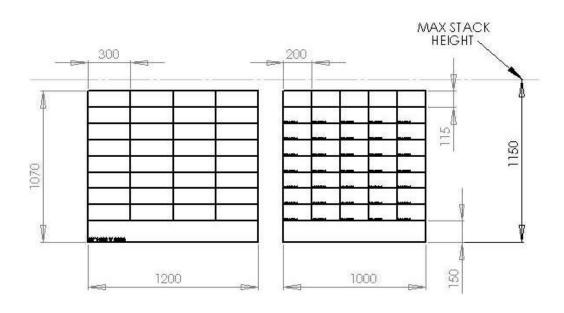




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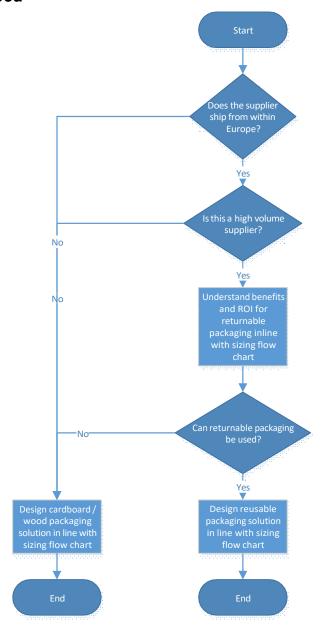
CONTAINER "B" - SMALL CONTAINER ON A UK PALLET





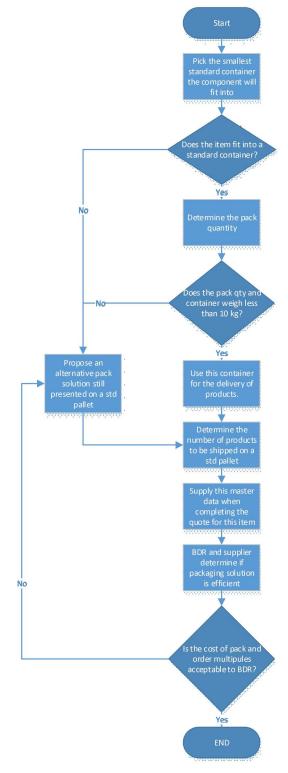
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8.6. Appendix E1 – Flow chart to determine if re-usable packaging should be used



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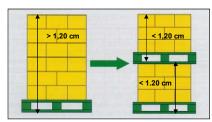
8.7. Appendix E2 - Flow chart to determine which container size to use:



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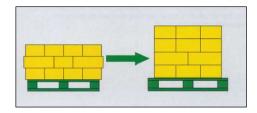
8.8. Appendix F Stacking method requirements

a) Maximum height 1.2 m - Manage the pallet height as shown below



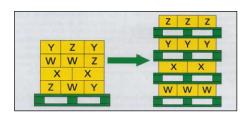
A pallet with packages or crates must have a maximum height of 1.2 metres. If the delivery exceeds the stated height, then it must be distributed over 2 or more pallets.

b) All goods are within the dimensions of the pallet - No overhang allowed



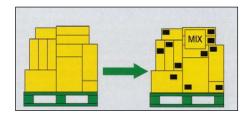
To avoid damage to the goods, the delivered goods must be located within the dimensions of the pallet.

c) Deliver articles separately



If several types of articles are delivered in small volumes, these must be separated with pallets.

d) Mixed pallets - Group the same items together



If the diversity of parts is so great that it is no longer possible to deliver them in separate rows, then a mixed pallet may be delivered. However, in this event, it is necessary that the articles are

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clearly distinguishable, have their own labels and are stacked in such a way that the label is easily readable.

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8.9. Appendix G - BDRT and Supplier Packaging and Labelling sign off sheet

The following items within the BDR Thermea packaging and labelling operations rule are understood and will be adhered to:

Shipping documentation	
Labelling of pollete	
Labelling of pallets	
Labelling of Containers	
Barcode Format Code 128	
Quality / Condition of the received goods	
Delivery by agreed incoterm	
Container standard size requirements	
Container maximum weight	
The use of only Euro 1 and 2 Pallets	
Stacking of pallets	
Stacking of containers on pallets	
Stacking of mixed pallets if absolutely necessary	

BDRT Procurement Manager	Supplier

Signed:

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8.10. Appendix H – Component packaging and labelling for TRADE PRODUCTS

1. Purpose

For an efficient process from collection at a supplier to point of consumption, BDR Thermea Group uses item number OR0003: "OPERATION RULES for component packaging and labelling".

This document is drawn up as an attachment to these rules.

2. Scope

The scope of this document is the operation rules for component packaging and labelling for "Trade Products" handled by all company's within BDR Thermea Group.

3. Definitions

"Trade Products are goods which are purchased, sold or distributed by a site, but which undergo no process at the audited factory, which might alter their integral purpose or workings. These are also referred to as 'factored goods'.

4. Deviations from OR0003

For Trade Products NO reference to supplier name may be shown on packing or labelling.

5. Secondary container packaging, labelling and barcode Rules

A secondary container is a box or package that contains multiple single items for shipment. Packaging, labelling and barcode rules are equal to single items mentioned in point 6. Additionally the label must contain the <u>container quantity</u> of single items in text and barcode.

6. Single item packaging, labelling and barcode Rules

Single items must include minimum requirements which are:

- Single item labels must contain as minimum:
 - Our article number
 - Corresponding barcode (Code 128 format)
 - GTIN barcode
 - Article name (preferably in 4 languages NL/EN/GER/FR) but minimum EN
- Single item labels design must be proportionate to product size
- Text and barcode must be readable from a distance of 0.5 meters
- Serial number: in those case where a Serial Number is applied it is desirable to print this in numbers and barcode on the label .

The content of the label is always determined and approved in consultation with the purchasing subsidiary of BDR Thermea Group.

Suppliers can add specific information to the label if needed.

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Art.no. 7695911



4-weg omkeerklep 11/8"
4-Way reversing valve 11/8"
4-Wege-Umkehrventil 11/8"
Vanne d'inversion 4 voies 11/8"

GTIN



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