Regional Packaging Guideline

MAHLE Behr Brazil
Table of Contents

1 Requirements .............................................................................................................................................. 1
  1.1 Standard Dimensions ................................................................................................................................. 1
  1.2 Ergonomics .................................................................................................................................................. 1
  1.3 Product Protection ........................................................................................................................................ 1
  1.4 Load Securing, Closure ................................................................................................................................. 1
  1.5 Labeling ..................................................................................................................................................... 2

2 Returnable packaging systems .......................................................................................................................... 2
  2.1 Large container ........................................................................................................................................... 2
  2.2 Small container ........................................................................................................................................... 3
  2.3 Special Packaging ....................................................................................................................................... 3

3 Disposable Packaging ........................................................................................................................................ 3

4 Overseas Packaging ......................................................................................................................................... 4

5 Management of Empties ................................................................................................................................... 4

6 Hazardous Material .......................................................................................................................................... 4

7 Environment / Recycling / Waste Prevention .................................................................................................... 4

8 Abbreviations .................................................................................................................................................. 4
1 Requirements

1.1 Standard Dimensions
To store the materials on shelf racks the requirements for the dimensions of the pallets are: 1200x800 and 1200x1000mm, other dimensions have to be approved by MAHLE Behr logistics. The height of the unit load including pallet and cover must not exceed 1100mm. The maximum acceptable weight for unit load is 1000 kg.

1.2 Ergonomics
For small boxes that will be manually handled, the weight cannot exceed 15 kg. The maximum acceptable weight per unit load cannot exceed 1000 kg per pallet or carton, except for BIG BAGS and coils that could be up to 1500 kg.

1.3 Product Protection
If the product requires ESD, corrosion, or moisture protection (as far as in the drawings or specifications / quality standards not specified), special protective packaging is required (ESD Tote/Bag, desiccant in a sealed bag). It is the supplier’s responsibility to make sure the packaging prevents transport damage according to the defined shipping method.

1.4 Load Securing, Closure
Suppliers are responsible for the proper loading, considering quality preservation and safety. Materials that arrive in a MAHLE Behr plant that are damaged will be assessed for root cause. The severity of the damage in a truck may warrant the issuance of a supplier non conformance, and/or request for a corrective action process as dictated by MAHLE Behr.
1.5 Labeling
Each packaging must contain only a material identification label, according to Odette standard, this label shall be fixed with adhesive dots/ stick dots at the short side of the packaging and needs to be exposed for conference, example below:

- It is not allowed use labels that leave residue when removed from the returnable containers;
- It is not allowed to use labels completely glued at the returnable containers;

2 Returnable packaging systems

2.1 Large container
The table below has the informations about the large containers that MAHLE Behr provides to national suppliers:

<table>
<thead>
<tr>
<th>Container ID</th>
<th>Container Description</th>
<th>Outer Length (mm)</th>
<th>Outer Width (mm)</th>
<th>Outer Height (mm)</th>
<th>Inner Length (mm)</th>
<th>Inner Width (mm)</th>
<th>Inner Height (mm)</th>
<th>Container Weight (kg)</th>
<th>Maximum Stacking</th>
<th>Static Maximum Load (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BT5740</td>
<td>BOX GR</td>
<td>1100</td>
<td>990</td>
<td>970</td>
<td>1110</td>
<td>910</td>
<td>760</td>
<td>65</td>
<td>6</td>
<td>4200</td>
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<tr>
<td>BT0177</td>
<td>BOX GLT 121008</td>
<td>1200</td>
<td>1000</td>
<td>850</td>
<td>1120</td>
<td>920</td>
<td>670</td>
<td>65</td>
<td>6</td>
<td>4200</td>
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</tbody>
</table>
2.2 Small container

The table below has the informations about the Small containers that MAHLE Behr provides to national suppliers:

<table>
<thead>
<tr>
<th>Container ID</th>
<th>Container Description</th>
<th>Outer Length (mm)</th>
<th>Outer Width (mm)</th>
<th>Outer Height (mm)</th>
<th>Inner Length (mm)</th>
<th>Inner Width (mm)</th>
<th>Inner Height (mm)</th>
<th>Container Weight (kg)</th>
<th>Maximum Stacking</th>
<th>Static Maximum Load (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B176774</td>
<td>PLASTIC BOX 1002</td>
<td>205</td>
<td>160</td>
<td>152</td>
<td>238</td>
<td>152</td>
<td>250</td>
<td>0.45</td>
<td>7</td>
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<tr>
<td>B176732</td>
<td>BOX MULTIPACK 8</td>
<td>320</td>
<td>297</td>
<td>217</td>
<td>347</td>
<td>237</td>
<td>212</td>
<td>1.31</td>
<td>5</td>
<td>356.50</td>
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<tr>
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<td>PLASTIC BOX 1512</td>
<td>425</td>
<td>340</td>
<td>145</td>
<td>370</td>
<td>300</td>
<td>210</td>
<td>1.31</td>
<td>9</td>
<td>151.60</td>
</tr>
<tr>
<td>B176742</td>
<td>PLASTIC BOX 1014</td>
<td>500</td>
<td>360</td>
<td>275</td>
<td>416</td>
<td>310</td>
<td>220</td>
<td>2.56</td>
<td>10</td>
<td>322.70</td>
</tr>
<tr>
<td>B176777</td>
<td>BOX MULTIPACK 5</td>
<td>590</td>
<td>370</td>
<td>210</td>
<td>555</td>
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<td>205</td>
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<tr>
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<td>PLASTIC BOX 1010</td>
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<td>PLASTIC BOX 1004</td>
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<td>345</td>
<td>145</td>
<td>735</td>
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<td>140</td>
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<td>BOX COMEPACK 5</td>
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<td>B176784</td>
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<td>260</td>
<td>260</td>
<td>1080</td>
<td>226</td>
<td>206</td>
<td>3.10</td>
<td>9</td>
<td>423.00</td>
</tr>
</tbody>
</table>

2.3 Special Packaging

Special packaging expendable or returnable is to be developed, procured and kepted in good usable conditions by the supplier unless otherwise stated in the business contract with MAHLE Behr. In the case that the supplier has to develop and procure the packaging, all packaging must be approved by MAHLE Behr logistics besides this a significant sample sizes must be available for Supplier’s Run @ Rate so the packaging can be reviewed and approved.

3 Disposable Packaging

For national suppliers will only be allowed use disposable boxes just in accordance with the MAHLE Behr logistics approval.

For backup in case there is a missing of returnable container, the supplier is allowed to use the disposable packaging, provided that it has dimensions closed to the returnable container that has been approved by logistics.

- It is required that the pallet has wooden stringers on the long side of it, for correct storage at our shelves.
4 Overseas Packaging

It's required that the pallet size has a length of 1140mm on the long side. For more information about overseas packaging, please, see global guidelines.

5 Management of Empties

As a partnership, MAHLE Behr requests the assistance of its suppliers for the correct use and cleaning of their packaging.

The supplier is responsible for delivering the material in packaging with conditions of use, clean and with only one label identifying the material. It is also the responsibility of the supplier to request packing to the logistics to attend the deliveries of material.

MAHLE Behr is responsible for providing clean, unlabelled container in good condition. It is also responsible for general repairs and replacing broken containers. Suppliers must notify the plant in case of receiving damaged containers and must ship them back properly marked for repair.

6 Hazardous Material

See Global Logistic Guideline

7 Environment / Recycling / Waste Prevention

See Global Logistic Guideline

8 Abbreviations

ESD  Electro Static Discharge