

INSERTS FOR SMALL FOLDING BOX AND BIG FOLDING BOX SYSTEM. CONTENTS.

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- Requirements to Integration Capability and Part Quality.
- Permitted Packaging Materials.
- Application Example for Paper, Corrugated Board and Moulded Fibre.
- Application Example for Plastic.
- 5 Application Example for Foam.
- 6 Application Example for Wood.
- Amendment Log.

INSERTS FOR SMALL FOLDING BOX AND BIG FOLDING BOX SYSTEM. REQUIREMENTS TO INTEGRATION CAPABILITY AND PART QUALITY.



Generally inserts should be used restrictively.

If inserts have to be used, they must boast the necessary product protecting features at maximum volume and area utilization rate. The part supplier is responsible for the concept of the inserts.

The used packaging and packaging aids are not allowed to have negative impact to the part during transport (e.g. abrasion or fray).

Target is to integrate the packing process into the production process of the part supplier (In-Line-Process).

The parts should be placed directly after production and without additional effort into the packaging. Packing the parts into the packaging and taking them out at the receiving plant must be done within a single handling step (optimal material pickup). Exceptions need to be approved by BMW Packaging Planning.



Fig. 1: Without inserts e.g. mounting bracket



Fig. 2: Without inserts e.g. cover



Fig. 3: Without inserts e.g. pipe



Fig. 4: Without inserts e.g. generator cable

INSERTS FOR SMALL FOLDING BOX AND BIG FOLDING BOX SYSTEM. PERMITTED PACKAGING MATERIALS.



The list of all permitted and non-permitted packaging materials of the BMW Group is provided at the following links:

If various materials are used for interior, they must be easily separated from each other to ensure a proper recycling.



Fig. 5: Material examples for paper, corrugated board and moulded fibre



Fig. 6: Material examples for wood



Fig. 7: Material examples for plastics



Fig. 8: Material examples for thermoformed sheet

INSERTS FOR SMALL FOLDING BOX AND BIG FOLDING BOX SYSTEM. APPLICATION EXAMPLE FOR PAPER, CORRUGATED BOARD AND MOULDED FIBRE.



Purpose of use for paper, corrugated board and moulded fibre :

- Separator
- Layer sheet
- Form-fit insert



Fig. 9: Corrugated board separator e.g. hitch



Fig. 10: Corrugated board layer sheet e.g. control arm



Fig. 11: Corrugated board insert e.g. connection support



Fig. 12: Moulded fibre insert e.g. belt tensioner



Fig. 13: Robot suitable packaging with corrugated board insert e.g. battery



Fig. 14: Corrugated Board inlay e.g. comfort adjuster

INSERTS FOR SMALL FOLDING BOX AND BIG FOLDING BOX SYSTEM. APPLICATION EXAMPLE FOR PLASTIC.



Purpose of use for plastic:

- Bag
- Foil sheet
- Bubble wrap sheet
- Spun-bonded fabric
- Form-fit insert (separator, thermoformed and EPP-trays)



Fig. 15: Bag e.g. wiring harness



Fig. 16: Thermoformed Tray e.g. key



Fig. 17: EPP-Tray e.g. wiper arm



Fig. 18: Thermoformed Tray e.g. central control unit

INSERTS FOR SMALL FOLDING BOX AND BIG FOLDING BOX SYSTEM. APPLICATION EXAMPLE FOR FOAM.



Purpose of use for foam:

- Bag
- Foam sheet
- Foam nesting



Fig. 19: Foam sheet e.g. engine cover



Fig. 20: Foam sheet e.g. make up mirror



Fig. 21: Foam nesting e.g. decorative stripe



Fig. 22: Foam nesting e.g. decor trim

INSERTS FOR SMALL FOLDING BOX AND BIG FOLDING BOX SYSTEM. APPLICATION EXAMPLE FOR WOOD.



Wood must generally be used restrictively and always requires a prior approval by the responsible BMW packaging planner.

If wood is used to stabilize a load unit or parts, additional requirements for intercontinental One-Way Packaging need to be considered.

Wooden components need to follow the same requirements as a pallet. Details about the pallet can be found at chapter pallet (<u>internal</u> / <u>external</u>).

Purpose of use for wood:

Fixture for heavy or huge parts



Fig. 23: Wooden fixture e.g. automatic gear box

INSERTS FOR SMALL FOLDING BOX AND BIG FOLDING BOX SYSTEM. AMENDMENT LOG.



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