



TEST SUMMARY

121201 TO 121212 SERIES PACKAGING TEST

1.0 Test Method Used

ES-40000-7001 General tests for shipping units, section 5.2.1 Handling (Drop Test)

2.0 Packaging Tested

Refer to PK-121201-001 Rev H for packaging details.

3.0 Product Tested

121201 to 121212 series DIN components packaged in bags 1211160574 or 1211160575 & carton 1211160583.

DIN components tested:



Figure 1, 1211310914 Type A 3P Cover Assembly, Black.



Figure 2, 1211240160 Form 'A' Integral Gasket.

| | | | |
|--|---|---|---|
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Figure 3, 1211300017 M3x30 Mounted Screw.



Figure 4, 1211320188 Type A Insert Assembly, 2P, No Tails.

4.0 Methodology Used

4.1.1 Drop Height (100cm)

Assurance level zero for a consignment weighing less than or equal to 10kg, see table 1.

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| Test Specimen | | Assurance Level | | | | |
|---------------------|--|-----------------|-----|-----|-----|-----|
| Weight (W) | Drop Height and Equivalent Acceleration | ZERO | I | II | III | IV |
| W ≤ 10 kg | Drop Height (cm) | 100 | 80 | 60 | 40 | 30 |
| | Acceleration (cm / second ²) | 434 | 399 | 345 | 282 | 244 |
| 10 kg < W ≤ 20 kg | Drop Height (cm) | 80 | 60 | 55 | 35 | 25 |
| | Acceleration (cm / second ²) | 399 | 345 | 330 | 264 | 224 |
| W ≤ 22 lbs | Drop Height (inch) | 39 | 32 | 24 | 16 | 12 |
| | Acceleration (inch / second ²) | 171 | 157 | 136 | 111 | 96 |
| 22 lbs < W ≤ 44 lbs | Drop Height (inch) | 31 | 24 | 22 | 14 | 10 |
| | Acceleration (inch / second ²) | 157 | 136 | 130 | 104 | 88 |

Table 1

4.1.2 Drop Sequence

| Drop Sequence | | |
|---------------|-------------|---|
| Order | Designation | Designation Description |
| 1 | C (2-3-5) | Corner (Angle) Formed by Surfaces 2, 3, and 5 |
| 2 | E (2-5) | Edge Formed by Surfaces 2 and 5 |
| 3 | E (3-5) | Edge Formed by Surfaces 3 and 5 |
| 4 | E (2-3) | Edge Formed by Surfaces 2 and 3 |
| 5 | F (5) | Surface 5 |
| 6 | F (6) | Surface 6 |
| 7 | F (2) | Surface 2 |
| 8 | F (4) | Surface 4 |
| 9 | F (1) | Surface 1 |
| 10 | F (3) | Surface 3 |

Table 2

| | | | |
|--|---|---|---|
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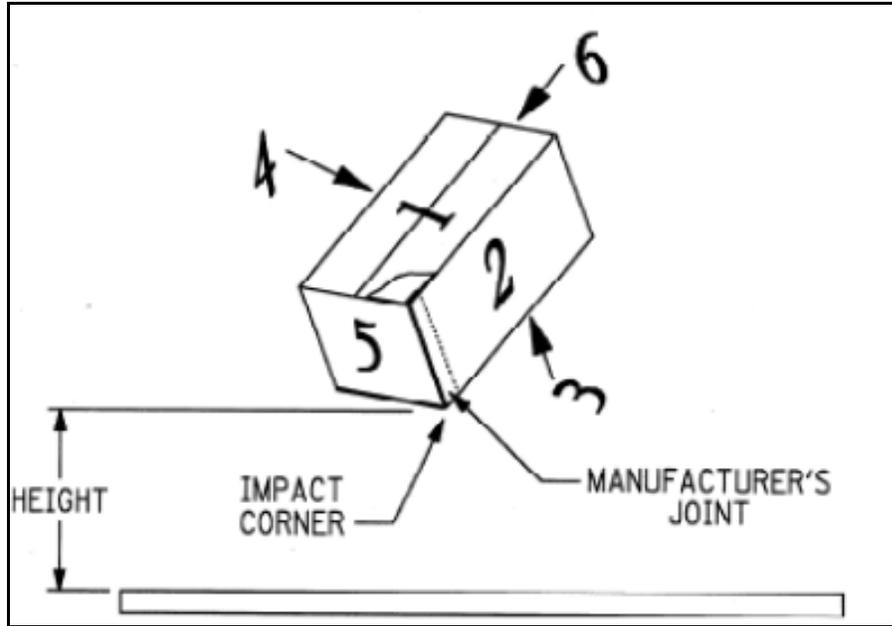


Figure 5, Carton Surface Description

5.0 Acceptance Criteria

All parts visually undamaged and remain inside their packaging post test.

6.0 Box Closure

Box taped top and bottom with packing tape.

7.0 Results

7.1 Visual Post Drop Test

All parts are visually undamaged and remain inside their bags and cartons.
Some movement of the screw washer gasket was evident.
Dents and marks were visible on the assembly bags post test.

| | | | |
|--|---|---|---|
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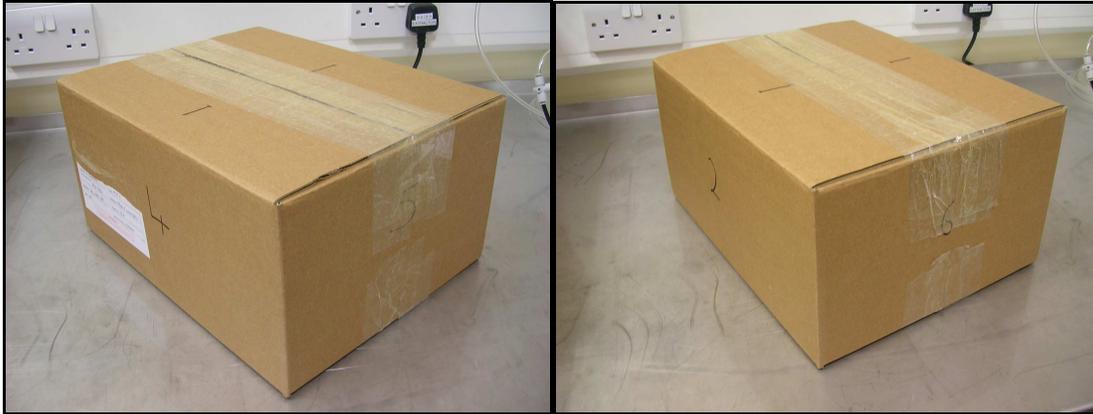


Figure 6.1, Pre Test, Faces 1,4,5 & 1,2,6



Figure 6.2, Pre Test, Faces 3,4,5 & 2,3,6



Figure 6.3, Post Test, Faces 1,4,6 & 1,2,5

| | | | |
|--|---|---|---|
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Figure 6.4, Post Test, Faces 2,3,6 & 3,4,5

- 8.0 Overall Result:**
The packaging meets the acceptance criteria.
- 9.0 Conclusion:**
The integrity of the box was intact after the test.
- 10.0 Recommendation:**
None.

| | | | |
|---|--|--|--|
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