

Highly Robust, Stackable, Coolable and Compact

Ship and Store Your Bulk Drug Substance

- With RoSS system
- Single-use Ross.SHIP systems keep cool for at least 6 days
- For use with various sizes of Allegro™ 2D biocontainer bags
- Eliminates product loss during storing and transportation

RoSS.SHIP holds up to 27 RoSS trays in a compact volume. Most frozen substances can be stored and shipped in a protected manner and according to international logistics standards. The single-use RoSS.SHIP container is designed for passive cooling with dry ice or phase change materials (PCM).

Optionally the interior temperature of the RoSS.SHIP container can be logged and 24/7 GPS or G-Force tracking is also available

RoSS.SHIP secures the cold chain storage and shipping of bulk drug substance for one week. Tests have shown that the temperature inside most types of RoSS.SHIP is below -60 °C for consecutive seven days. Therefore, it is suitable for both short distance and long distance transportation including air-freight and international shipping of substances.



Benefits

- Isolated shipping containers for passive cooling processes
- Validation based on ISTA / ASTM 4169
- Optional temperature- / GPS- / G-Force tracking
- Adjustable to all requirements and batch sizes
- Suitable for phase change materials and dry ice
- Single-use

Table 1

Technical specifications single-use shippers (<2 L)

| Part Number | LGRSHIP500ML | LGRSHIP1L | LGRSHIP2L |
|------------------------------|--|--|--|
| RoSS Type | LGRFREEZE500ML | LGRFREEZE1L | LGRFREEZE2L |
| Dry Weight | 40 kg | 40 kg | 40 kg |
| Outer Dimensions (W x D x H) | 1200 x 800 x 1075 mm 48 x 32 x 43 in. | 1200 x 800 x 1075 mm 48 x 32 x 43 in. | 1200 x 800 x 1075 mm 48 x 32 x 43 in. |
| Internal Shipper Temperature | -60 °C | -60 °C | -60 °C |
| Temperature Duration | 144 hours | 144 hours | 144 hours |

Table 2

Technical specifications single-use shippers (>5 L)

| Part Number | LGRSHIP5L | LGRSHIP10L | LGRSHIP20L |
|------------------------------|--|--|--|
| RoSS Type | LGRFREEZE5L | LGRFREEZE10L | LGRFREEZE20L |
| Dry Weight | 40 kg | 40 kg | 40 kg |
| Outer Dimensions (W x D x H) | 1200 x 800 x 1075 mm 48 x 32 x 43 in. | 1200 x 800 x 1075 mm 48 x 32 x 43 in. | 1200 x 800 x 1075 mm 48 x 32 x 43 in. |
| Internal Shipper Temperature | -60 °C | -60 °C | -60 °C |
| Temperature Duration | 144 hours | 144 hours | 144 hours |

RoSS.SHIP Single-Use

Figure 1

Single-use shipper LGRSHIP inlets

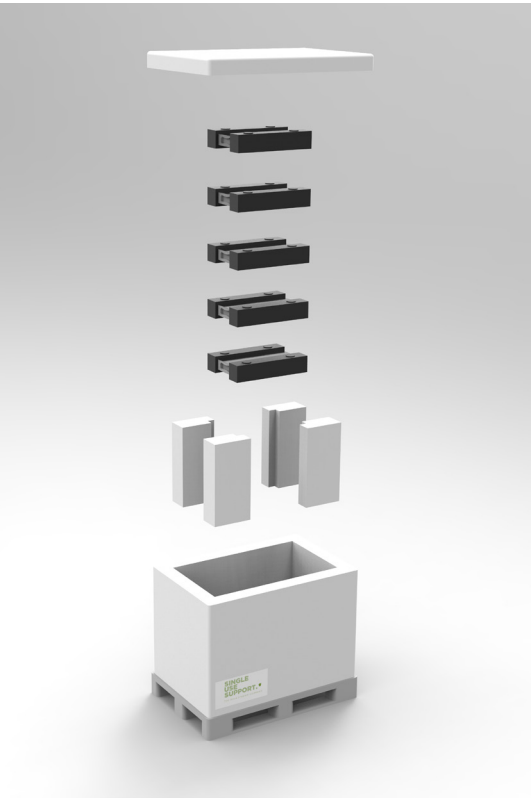


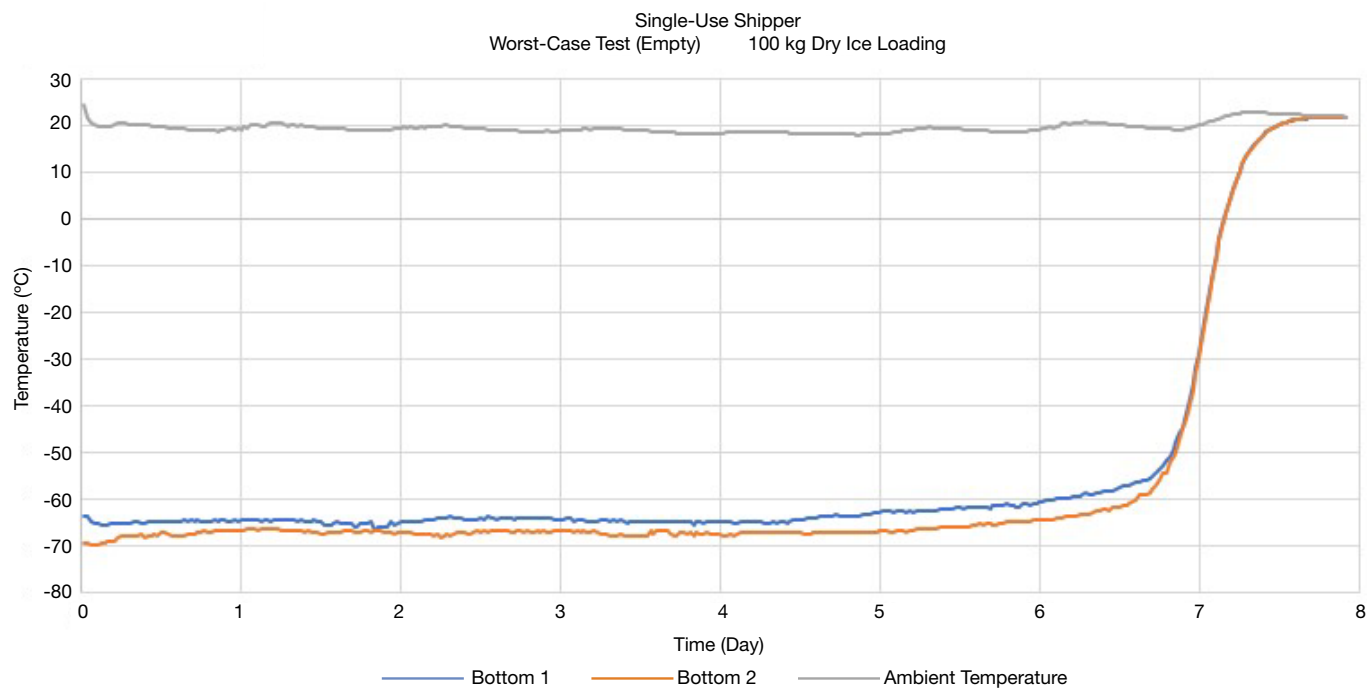
Figure 2

Single-use shipper LGRSHIP box



Figure 3

Temperature holding curve for LGRSHIP



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