



Date of test 18.5.2022
Date of expiry 18.5.2025
Number of pages 3 B / B

Test Certificate No. 12407.2/22-5

This Certificate is only valid when printed in colour and complete with all 3 pages.

Applicant BulkPack Exports Ltd.
"507", "B" Block, 5th Floor, Corporate House, RNT Marg, Indore – 452 001 (M.P.), India

Test piece *Flexible Intermediate Bulk Container - SWL = 1250 kg, SF = 5:1*
Single trip FIBCs for non-dangerous goods acc. ISO 21898

Design

| | | | |
|--|---|---------------|-------------|
| Manufacturer's type designation | N/A | | |
| Dimensions | (100 cm x 100 cm) x 240 cm | Volume | 2400 litres |
| Tare | 2640 g | | |
| Wall fabric | Polypropylene 130 g/m ² , uncoated ¹⁾ , white flat woven fabric layers, each with one brown, one black, one yellow and two green coloured tapes | | |
| Base fabric | Polypropylene 160 g/m ² , uncoated ¹⁾ | | |
| Suspension | Four black PP-webbings (50 mm wide, 35 g/m), sewn into the vertical seams in a length of 80 cm / 170 cm | | |
| Details | Four vertical seams, four horizontal seams at the bottom / overlock + chain stitching / fabric folded in all the seams / open top ²⁾ / no inliner / edges formstabilized (baffle bag) / discharge spout d = 45 cm ³⁾ made of PP-fabric 90 g/m ² + 20 g/m ² coating, double seam ²⁾ | | |

Kind of tests *Type Tests according to ISO 21898*

Test a Cyclic top lift test acc. Annex B **Test c** Compression test acc. Annex C

Test conditions Charging with plastic granules (filling height approx. 235 cm), load application with piston and pressure plate (d = 100 cm), rate of load application 70 kN/min.

Cyclic load and load to failure **Sample a** After 30 cycles of load application to $P_c = 25$ kN (2550 kg) no visible damages occurred in the test piece. The load has then been increased until failure. When reaching a load of $P_b = 74,2$ kN (7560 kg) a webbing tore at the suspension frame.

Compression **Sample b** After six hours compression by $P_k = 50$ kN (5100 kg) no visible damages occurred in the test piece.

Test result *A safe working load SWL = 1250 kg / SF = 5:1 is allowable.*

Statement of conformity The FIBCs tested comply with the requirements of ISO 21898.
FIBCs of this design type are in a condition for safe operation.

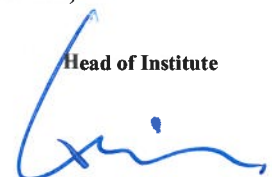
Notes **This certificate is restricted to FIBCs produced by BulkPack Exports Ltd.**
All material weights are minimum weights and may not be lower than the values shown.
Test diagram and photo of a test piece see page 2. This certificate expires on 18.5.2025.
¹⁾ Raw material: Pure virgin polypropylene (statement of the manufacturer)
²⁾ "Directions for use referring to this certificate" see page 3.

Competent Engineer

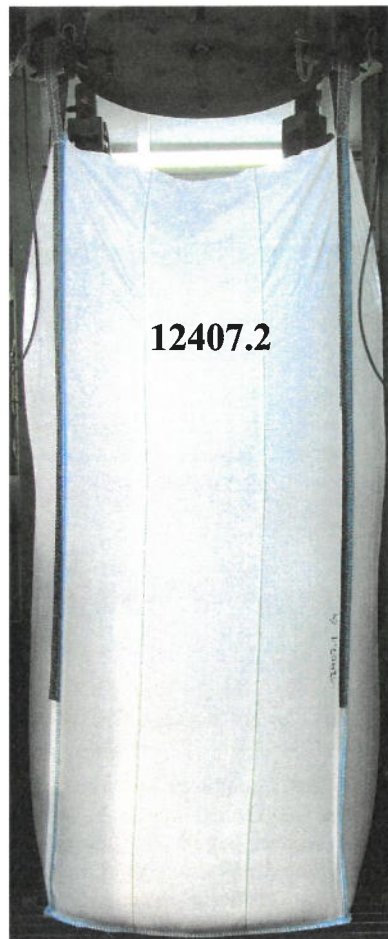
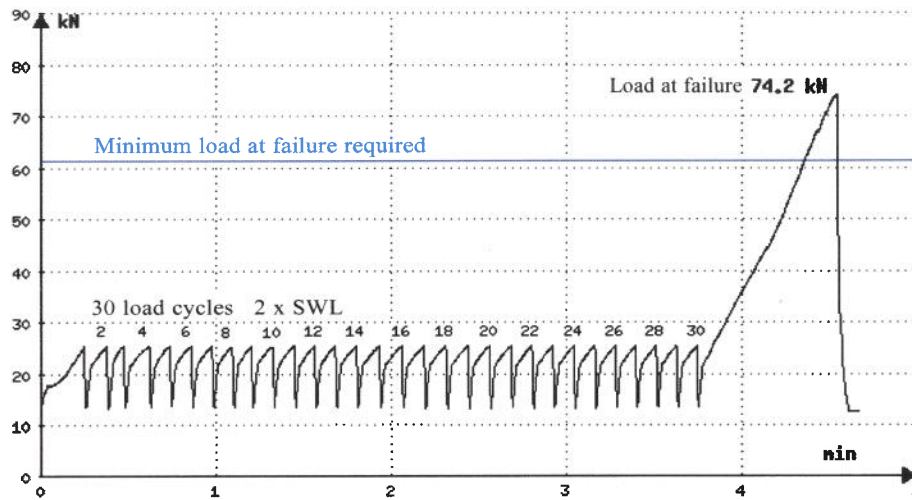

Jorg Bartel



Head of Institute


Dr. Herbert Kielbassa

FIBC cyclic top lift test - test diagram 12407.2.1/22 - 5



Project data

Applicant : BulkPack Exports Limited
Test piece : FIBC 100 cm x 100 cm x 240 cm
Safe working load : SWL = 1250 kg
Safety factor : SF = 5 : 1

Test data

Test date : 18.5.2022
Test Standard : ISO 21898
Load at failure : Pb = 74,2 kN = 7560 kg



Directions for use referring to this certificate

This certificate covers FIBCs of like design, manufactured using like materials and methods of construction as set down in this certificate and showing dimensions as listed below and in the certificate. The use of other methods or components may render the certificate invalid. It is the responsibility of FIBC manufacturers to ensure the samples tested are representative of the production.

| Allowed (covered by this certificate) | Not allowed (not covered by this certificate) |
|---|---|
| Diameters of discharge spout smaller than 45 cm | Diameters of discharge spout larger than 45 cm |
| Base without discharge spout | |
| Base dimensions of between 100 cm x 100 cm and 110 cm x 110 cm provided the same geometry is maintained | Base dimensions smaller than 100 cm x 100 cm Base dimensions larger than 110 cm x 110 cm |
| Bag heights 235 cm - 240 cm | Bag heights diverging from 235 cm - 240 cm |
| Use for one filling and one discharge only | Re-use of the FIBCs |
| Open top or any other design of top construction | Manufacture after expiry date of this certificate: 18.5.2025 |

Label

All FIBCs shall be durably marked by means of a permanently attached and easily visible and readable label. The layout of the label referring to this certificate shall be as shown below with the following data:

| | |
|---|---|
| Manufacturer's Name & Address and Logo Manufacturer's Reference (unique to the hereby certified FIBC type) | |
| SWL 1250 kg | Safety Factor 5 : 1 |
| Your logos etc. | Test Certificate No 12407.2/22-5 |
| | Test Certificate Date 18.5.2022 |
| | Approved Laboratory LABORDATA |
| | Test Standard ISO 21898 |
| | FIBC Class Single trip |
| | Date FIBC manufactured |
| Handling Recommendations / Pictograms (proposals see www.labordata.com) | |
| Supplier's Name & Address (if required) | |