Date of test	20.9.2019
Date of expiry	20.9.2022
Number of pages	4 C / B

This Certificate is only valid when printed in colour and complete with all 4 pages.

Test Certificate No. 11460.3/19-9

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

Manufacturer Pithampur Poly Products Limited
2 A.B. Road, Geeta Bhawan Square, Indore - 452 001 (M.P.), India

Test pieces ***Flexible Intermediate Bulk Containers - SWL = 1500 kg, SF = 5:1***
Single trip FIBCs for non-dangerous goods acc. ISO 21898

Manufacturer's type designation N/A

Design

Dimensions Sample a : (90 cm x 90 cm) x 90 cm (lowest size) [1] **Volume** 800 litres **Tare** 1180 g
Samples b + c: (90 cm x 90 cm) x 200 cm (highest size) [1] **Volume** 1800 litres **Tare** 1950 g

Wall fabric Polypropylene 150 g/m², uncoated, white flat woven fabric layers, lowest size with one black, one yellow and one purple coloured tape, highest size without coloured characterization [2]

Suspension Four black PP-webbings (50 mm wide, 42 g/m), sewn into the vertical seams in a length of 60 cm / 80 cm (lowest size) resp. 90 cm / 150 cm (highest size) [3], anchorage lengths for intermediate sizes see page 4

Details Four vertical seams, two horizontal seams at the bottom (U-panel design) / overlock + chain stitching / fabric folded in all the seams / open top [2] / no inliner / discharge spout d = 35 cm [3] made of PP- fabric 90 g/m² + 22 g/m² coating, double seam

Kind of tests ***Type Tests according ISO 21898***

Tests a + b Cyclic top lift tests acc. Annex B **Test c** Compression test acc. Annex C

Test conditions Charging with plastic granules (filling height approx. 85 cm (lowest size) resp. 195 cm (highest size), load application with piston and pressure plate (d = 90 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 = **30 kN** (3060 kg) no visible damages occurred in the test piece. The load has then been increased until failure. On reaching a load of P_b = **89,8 kN** (9150 kg) the short leg of a webbing tore out of its attachment and the fabric tore at a bottom seam.

Sample b After 30 cycles of load application to P_c = **30 kN** (3060 kg) no visible damages occurred in the test piece. The load has then been increased until failure. On reaching a load of P_b = **76,8 kN** (7820 kg) a webbing tore at the suspension frame.

Compression

Sample c After six hours compression by P_k = **60 kN** (6120 kg) no visible damages occurred in the test piece.

Test result *A safe working load SWL = 1500 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 Pithampur Poly Products Limited.
[1] **This certificate covers all FIBCs with heights of between 90 cm and 200 cm.**
All material weights are minimum weights and may not be lower than the values shown.
Test diagrams see page 2. Photos of the test pieces see page 3.
[2] Raw material: Pure virgin polypropylene (statement of the manufacturer)
[3] "Directions for use referring to this certificate" see page 4.
Two test pieces are kept in our store for three years. This certificate expires on 20.9.2022.

Competent Engineer Ronald Clews

Head of Institute Dr. Herbert Kielbassa

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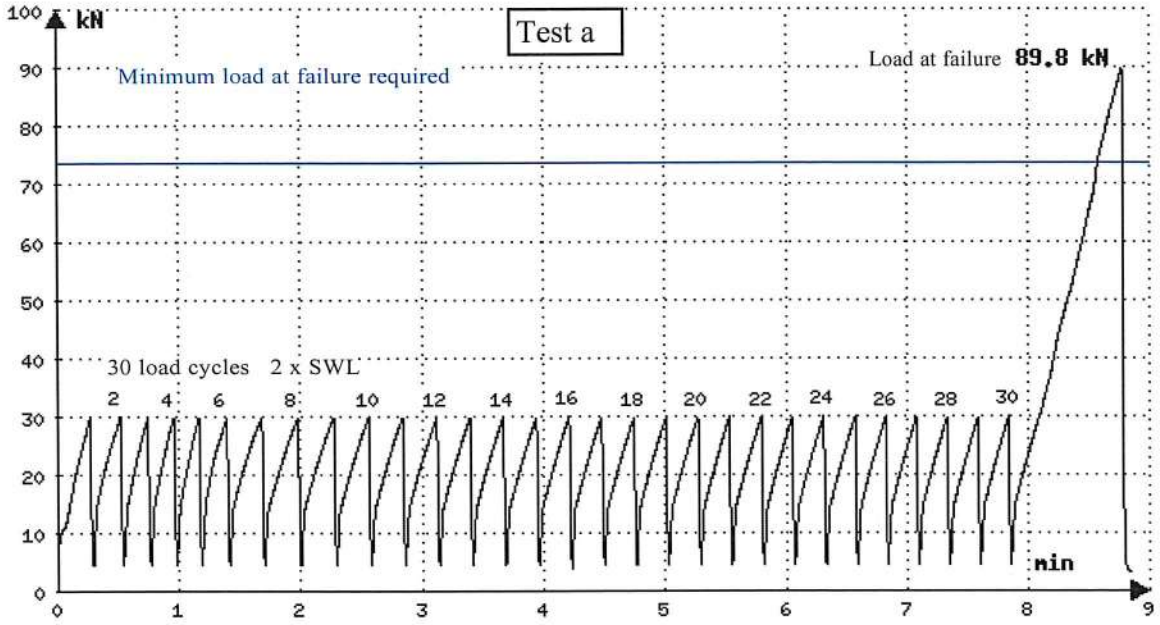
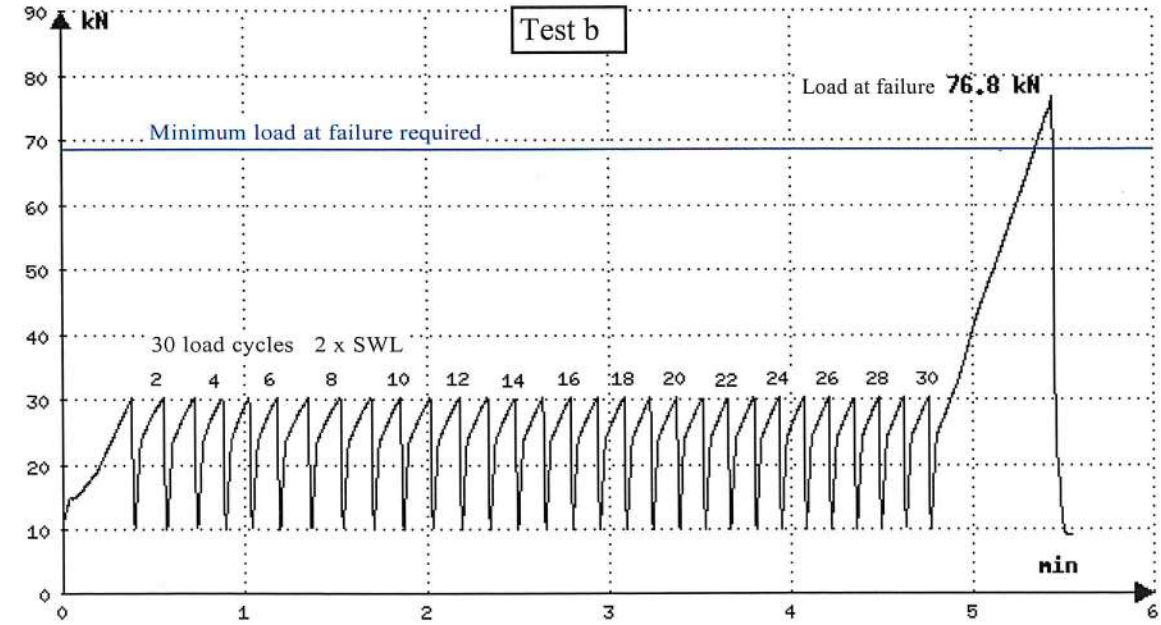
FIBC - Cyclic top lift tests
Test diagrams 11460.3 a + b / 19 - 9





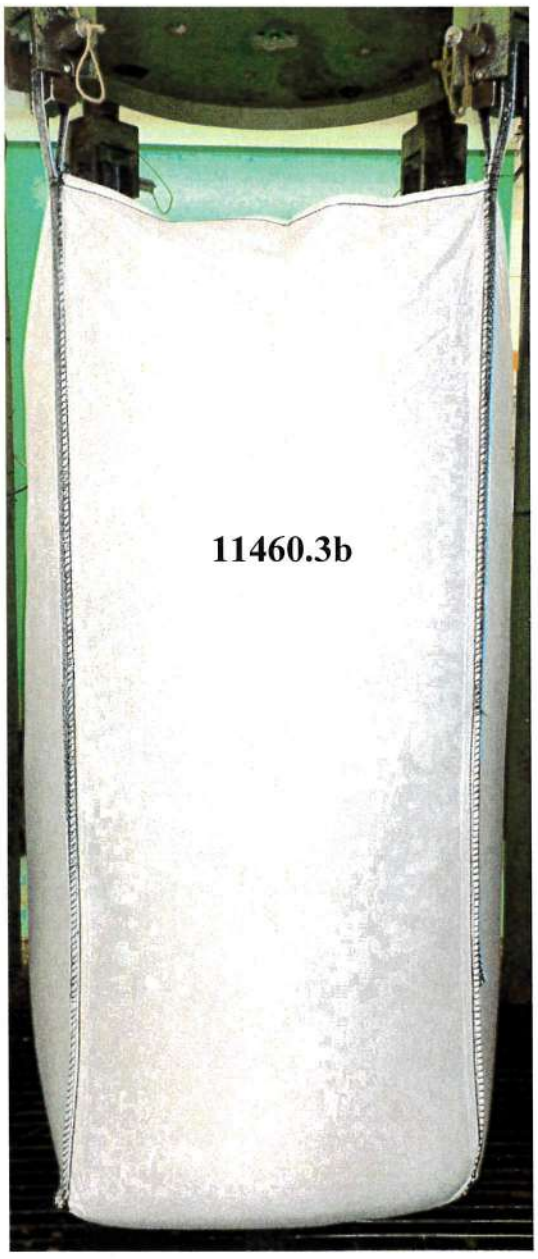
Project data

Applicant	: Bulkpack Exports Limited.
Test piece a	: FIBC 90 cm x 90 cm x 90 cm
Test piece b	: FIBC 90 cm x 90 cm x 200 cm
Safe working load	: SWL = 1500 kg
Safety factor	: SF = 5 : 1

Test data

Test date	: 20.9.2019
Test Standard	: ISO 21898
Load at failure, test a	: Pb = 89,8 kN = 9150 kg
Load at failure, test b	: Pb = 76,8 kN = 7820 kg

FIBC - Cyclic top lift tests
Photos of the test samples



Project data

Applicant	: Bulkpack Exports Limited.
Test piece a	: FIBC 90 cm x 90 cm x 90 cm
Test piece b	: FIBC 90 cm x 90 cm x 200 cm
Safe working load	: SWL = 1500 kg
Safety factor	: SF = 5 : 1

Test data

Test date	: 20.9.2019
Test Standard	: ISO 21898
Load at failure, test a	: Pb = 89,8 kN = 9150 kg
Load at failure, test b	: Pb = 76,8 kN = 7820 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 unvalid. 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 **35** cm	Diameters of discharge spout larger than **35** cm
Base without discharge spout	
Base dimensions of between **90** cm x **90** cm and **99** cm x **99** cm provided the same geometry is maintained	Base dimensions smaller than **90** cm x **90** cm Base dimensions larger than **99** cm x **99** cm
Bag heights of between **90** cm and **200** cm	Bag heights smaller than **90** cm Bag heights larger than **200** 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: **20.9.2022**

Anchorage lengths of the webbings

Bag height (cm)	90	100	110	120	130	140	150	160	170	180	190	200
Short leg (cm)	60	63	65	68	71	74	76	79	82	85	87	90
Long leg (cm)	80	86	93	99	105	112	118	125	131	137	144	150

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 1500 kg **Safety Factor 5 : 1**

Your logos etc.

Test Certificate No	**11460.3/19-9**
Test Certificate Date	**20.9.2019**
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)