



Test Certificate No. 9770.1/15-9

Date of test 7.9.2015
Date of expiry 7.9.2018
Number of pages 4 C / B

Applicant Atlantis Products Pvt. Ltd.
1205-1210 GIDC Dholka, Ahmedabad, 382225 India

Test pieces *Flexible Intermediate Bulk Containers - SWL = 1000 kg, SF = 6:1*
Standard-duty re-usable FIBCs for non-dangerous goods acc. ISO 21898

Design **Manufacturer's type designation** APPL-02

Dimensions Sample a : (90 cm x 90 cm) x 90 cm (lowest size)¹⁾ **Volume** 800 litres **Tare** 1140 g
Samples b + c: (90 cm x 90 cm) x 200 cm (highest size)¹⁾ **Volume** 1800 litres **Tare** 1910 g

Body fabric Polypropylene 140 g/m², uncoated, white flat woven fabric layers without coloured characterization²⁾

Suspension Four white PP-webbings (40 mm wide, 35 g/m), sewn into the vertical seams in a length of 40 cm / 65 cm (lowest size) resp. 60 cm / 140 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 top²⁾ / no inliner / discharge spout d = 40 cm³⁾ made of PP- fabric 80 g/m² + 20 g/m² coating, double seam

Kind of tests *Type Tests according ISO 21898*

Tests a + b Cyclic top lift tests plus final load to failure **Test c** Compression test

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

Test a After 70 cycles of load application to **P_c = 40 kN (4080 kg)** no visible damages occurred in the test piece. The load has then been increased until failure. On reaching a load of **P_b = 67,3 kN (6860 kg)** the fabric tore at a bottom seam.

Test b After 70 cycles of load application to **P_c = 40 kN (4080 kg)** no visible damages occurred in the test piece. The load has then been increased until failure. On reaching a load of **P_b = 77,6 kN (7910 kg)** the fabric tore at a bottom seam and at the discharge spout seam.

Compression **Test c** After six hours compression by **P_k = 54 kN (5500 kg)** no visible damages occurred in the test piece.

Test result *A safe working load SWL = 1000 kg / SF = 6:1 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 Atlantis Products Pvt. Ltd.

¹⁾ This certificate covers all FIBCs with heights of between 90 cm and 200 cm
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 7.9.2018.

Competent Engineer

Ronald Clews



Head of Institute

Dr.-Ing. Kielbassa