

Specification of

Büscherhoff Flexitanks

art. 24012000005

i.V. B. Due

B. Due

Version01, 2016-03-30

Certifications of the Büscherhoff Group



1.) Short description

Flexible tank for the transport of liquid products in sea-containers, approved by the German TÜV . Flexitanks produced according to the PAS1008:2014.



2.) Field of application

It is a one-way package for the transport of liquid foodstuff, chemical or industrial products – suitable for food.

3.) Properties

This multilayer flexitank consists of:

- 3 polyethylene and 1 HDPE film. All films are sealed several times to obtain a triple kind of safety
- A solid PP woven fabric
- 3" bottom discharge system(sealed with white dust cap)
- 3" camlock adapter-connection and 3" camlock-cap enclosed to be used for safe emptying
- The middle of the flexitank is marked with a X
- Filling flange reinforcements for a safe tank filling of the tank
- made of films which are conform to FDA regulation and Regulation (EU) 10/2011
- the flexitank is approved according to the European Regulation 1935/2004

4.) Used norm

DIN EN ISO 527-1-3; DIN 53375; DIN 53370; DIN EN ISO 13934-1; European Regulation No. 1935/2004, European Directives 82/711/EEC, 93/8/EEC, 97/48/EEC, 85/572/EEC, REGULATION (EU) No 10/2011, ASTM F88, ASTM D882, ASTM D4595, ASTM D5035

5.) Technical properties

- | | |
|---|--|
| • Dimensions | 4000 x 7240 mm |
| • thickness polyethylene film | 1 x 0,100 mm HDPE
3 x 0,125 mm LDPE |
| • woven PP fabric | 174 gr/m ² + 30 gr. coating |
| • longitudinal tensile strength of the film | > 26,0 N/mm ² |
| • transversely tensile strength of the film | > 28,0 N/mm ² |
| • film elongation longitudinal direction | > 600 % |
| • film elongation transversely direction | > 650 % |
| • strength of woven fabrics | > 1400 N/50mm |
| • prolongation of woven fabrics | > 15 % |
| • temperature conditions | -20°C to +60°C, controlled via temperature indicators |
| • capacity | 23520 – 24480 litres |
| • max. filling weight | 24.000 Kg |
| • storage | Flexitanks can be stored in their cardboard box for 12 months in a dry hall (5-25°C). No effects can be found regarding their quality. |

Certifications of the Büscherhoff Group



6.) Declaration of no objection and opinions

The products are conform to the terms of the regulations regarding the transport of foodstuff, tobacco products, cosmetics items and other consumer goods (law about food and consumer goods), as amended and promulgated on September 9th, 1997, last modification on August 6th, 2003 §§ 30 and 31, and they are shown in the Federal Law Gazette, following the regulation about consumer goods ordinance, which regulates the implementing of standard guidelines 89/109 EWG, 90/128/EWG and (EU) 10/2011 into national legislation, including latest amendments No. 20, issue day: 15th April 1992, publication version of 23rd December 1997, latest amendment 7th March 2003, up dated 12th August 2003, approved re its migration behaviour.

Furthermore these compounds are in accordance with the REGULATION (EG) No. 1935/2004 OF THE EUROPEAN PARLIAMENT AND COUNCIL dd. 27th October 2004. There is no objection to use the product within the range of food, even a direct contact is permitted.

We like to assure, that during the production of flexitanks no phtalates are being dumped inside.

The manufactured flexitanks are subject to a voluntary self-control of the accredited test laboratory LVL Lebensmittel- und Veterinärlabor GmbH, Emstek.

Opinions made by SKZ - TeConA GmbH, Certification, Quality Assurance. During a pre-trial with a flexitank, being installed in a container, no defect caused by wrong pressure was recognized. During the main trial an overpressure of 0,14 bar was observed on a flexitank which was stored outside.

The certificate 07 07 90262 001 authorises company Büscherhoff Spezialverpackung GmbH & Co. KG to use the illustrated symbol.



7.) Quality characteristics

As a associated member of the COA (Container Owners Association) company Büscherhoff puts high importance to the quality and safety of the flexibags. Our flexibags are subject to constant improvements and developments.

- **DIN ISO 9001:2008 certified**

The production and quality processes for production of our flexitanks as well as Quality Management functions are certified according to DIN-ISO 9001:2008.



- **Associated member of the Container Owner Association (COA)**

As a member of the COA we are working out a standard for flexibags together with the largest international shipping companies and insurance agencies. This „Code Of Practice“ will become valid from 1st January 2010 on and will then become the standard for production of flexibags. From that date on only flexibags fulfilling this standard will be allowed for transportation in a container. Our flexitanks are currently already complying with this standard.

- **Flexitanks produced according to the PAS1008:2014**

Certifications of the Büscherhoff Group





CERTIFICATE



This is to certify that



Büscherhoff Spezialverpackungen GmbH & Co. KG
Zertifizierter Bereich/Abteilung: Gesamtunternehmen

Gewerberg 8
49439 Steinfeld
Germany

has implemented and maintains a **Quality Management System**.

Scope:
Manufacturing and development of flexitanks made of various material combinations.

Through an audit, documented in a report, it was verified that the manufacture and testing of Büscherhoff Flexitanks fulfil the requirements of the following standard:

PAS 1008:2014

Certificate registration no. 005292 KB
Date of certification 2015-01-08
Valid until 2018-01-07

DQS-UL CFS GmbH

Dr. Sied Sadek
Managing Director

Accredited Body: DQS-UL CFS GmbH, August-Schanz-Straße 21, 60433 Frankfurt am Main

- **Certified by the German TÜV**

As there was no standard for the flexitanks in the past we, as the first manufacturer of flexitanks, have instructed the German TÜV to check and to certify our flexitank.



**Büscherhoff
Spezialverpackungen GmbH & Co. KG
Gewerbering 8
49439 Steinfeld**

Hereby it is certified Nr. 15 11 90262 001 that the flexible one-way tanks "Flexitanks" of the above mentioned company for the use outside of the danger property regulation was examined and recognized.



Productdescription:

The multi-layer "Flexitank" consists of multi-layer polyethylene foils and a textile multi-filament bag. The "Flexitank" is appropriate for filler temperatures from approx. -20 °C to 60 °C. This is supervised by an integrated indicator system. Manufactured in the following volumes: 10.000 - 28.000 litres.

The product meets the following requirements:

- Examination of the technical documentation from the company Büscherhoff
- Examination of the material strength according to the datasheet
- Attestation for food safety (ISEGA)
- DIN EN ISO 527-1 DIN 53375; DIN 53370; FDA §177.1520; DIN EN ISO 13934-1

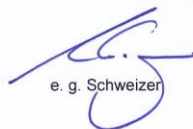
The product information and/or data sheets are considered general and particularly for the scope of protection.

Basis for the certificate is the test report with the No. 957858 "proceedings and requirements of flexible one-way tanks for the use and the transport of liquid media outside of the danger property regulation".

This certification is valid until November 2018.
Annual monitoring of the production.

Munich, 18th, November 2015

TÜV SÜD Industrie Service GmbH
Institute for Plastics


e. g. Schweizer



TUV®

• **Permanent observation of the production**

We installed individual quality circles for every single production step which gives an additional control. Products which are purchased from different suppliers are subject to a careful inspection test so that we can be sure that all accessories for the flexitanks have the requested quality. All these steps are permanently documented so that in case of any problem we will have the full traceability.

Certifications of the Büscherhoff Group



- **All accessories made in-house**

Another advantage regarding safety is the fact, that we are the only manufacturer who produces all accessories on our own and this will of course make sure that the single components fit exactly to each other.

- **Production quantity & error ratio**

We have an annual production of approximately 40.000 – 50.000 flexitanks whereas around 70 % will be used in the food and 30% in the chemical industry. We can trace back every single mistake into detail, every flexitank is stamped with a serial number and the DIN ISO prescribes that the traceability of our products must be assured. We can monitor every mistake to the last detail. This means that for every product we can determine which materials have been used and which employee has affected which individual production step.

Certifications of the Büscherhoff Group

