

Zellik, 10/05/2016

## TEST REPORT

**REPORT NR:** SVC/svc/IBC-16.031

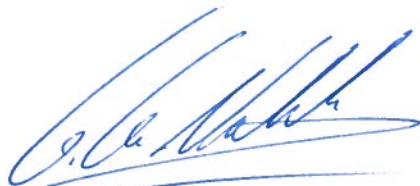
Report IBC-16.031/p1 of 6

**OBJECT :** Test on Flexible Intermediate Bulk Containers (FIBC) according to **ISO 21898**,  
§5.3.1 Cyclic top lift test  
Manufacturer reference or trade name: **KVR5 3m<sup>3</sup>**  
S.W.L. = **1100 kg** S.F. = **6/1** Class of FIBC: **Standard duty reusable**  
Receiving-date samples: 10/03/2016  
Executing date or period of testing: 11/03/2016 ->10/05/2016

**BY ORDER OF:** **KORALI D.O.O**  
**KONAREVO BR. 206**

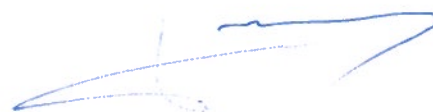
**SERBIA-36340 KONAREVO-KRALJEVO**

Head of Department (F)IBC  
& Dangerous Goods Packaging



Eng. D. De Valck

Analyst - department (F)IBC  
& Dangerous Goods Packaging



Stéphane Van Camp

*The results of this report are exclusively related to the submitted samples  
This report shall not be reproduced except in full, without written approval of the laboratory  
Q : accredited test (ISO 17025)  
Accuracy of the test results available on request*

**1. Specifications:**

*Cyclic top lift test* : 70 cycles at a test load of 4 x SWL and a final cycle at a test load of 6 x SWL

**2. Description samples:**

FIBC made of PVC (DIN 60001) 880grm/m<sup>2</sup> intended to be used as stationary underground container for collection of non-dangerous municipal solid waste.

The FIBC is made of 2 walls overlapping each other by 5 cm and glued over the whole length of the bag.

The FIBC has a full open discharge, the bottom is created when the body is folded using a rope fitted around the FIBC into a locking mechanism.

The FIBC has 16 hanging points that fit in a metal octagonal ring, equipped with 2 hanging points.

The Fabric is reinforced at multiple places and has reinforcement strokes of 5cm in the length with alternating spacing of 5 – 7 cm.



*See plans in annex.*

**Dimensions:**

Height x Diameter: (403 x Ø120)cm

Filling height: 285cm

Weight empty bag: 32500 g

**(incl. metal hanging points and mechanism)**

**Manufacturer:**

**KORALI D.O.O**  
**Konarevo br. 206**  
**36340 Konarevo-Kraljevo**  
**SERBIA**

Closing / Discharge mechanism



Metal fittings to secure rope



1 of 16 hanging points



Metal octagonal ring



1 of 2 hanging points



### **3. Test apparatus:**

Type : GH-45 with four load cells of 50 kN  
Method : **ISO 21898**  
Internal procedures: WP-IBC-001

### **4. Quality system:**

- Annual technical control.
- Annual calibration.

### **5. Specific conditioning:**

The bags are not preconditioned.  
Ambient temperature during testing:  $(18,7 \pm 1)^\circ\text{C}$   
Ambient relative humidity during testing:  $(34,6 \pm 5)\% \text{R.H.}$

**6. Effectuated tests:**

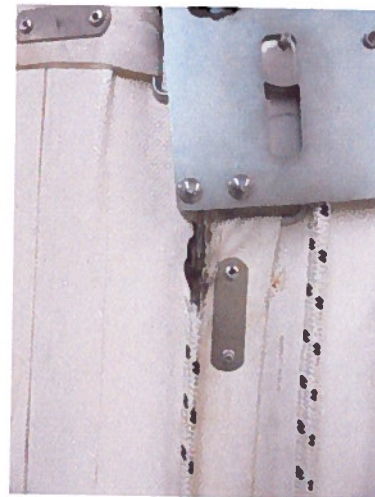
**A. Top lift test (Q):**

The FIBC is filled with plastic granulates (bulk density: 600kg/m<sup>3</sup>, mesh size: 4mm, angle of repose: 30°), further loaded to 4 times its heaviest load (SWL) (4 x 1100 kg) for 70 cycles and loaded to 6 times its heaviest load (SWL) (6 x 1100 kg) for 1 cycle, during this last cycle the load at rupture is determined. Used compression plate: Custom Ø100cm

**7. Results:**

**A. Top lift test (Q):**

The FIBC didn't show any deterioration after having been loaded with the 71 cycles as mentioned above. The FIBC broke at 7507 kg at the point(s) show in the picture.



**9. Remarks:**

The presented FIBC's have met the performance tests and may be used in connection with the specification mentioned in §1 of this report.

- Maximal net weight : 1100 kg
- SF : 6/1
- Standard duty reusable

All other conditions of use are not covered by this report.

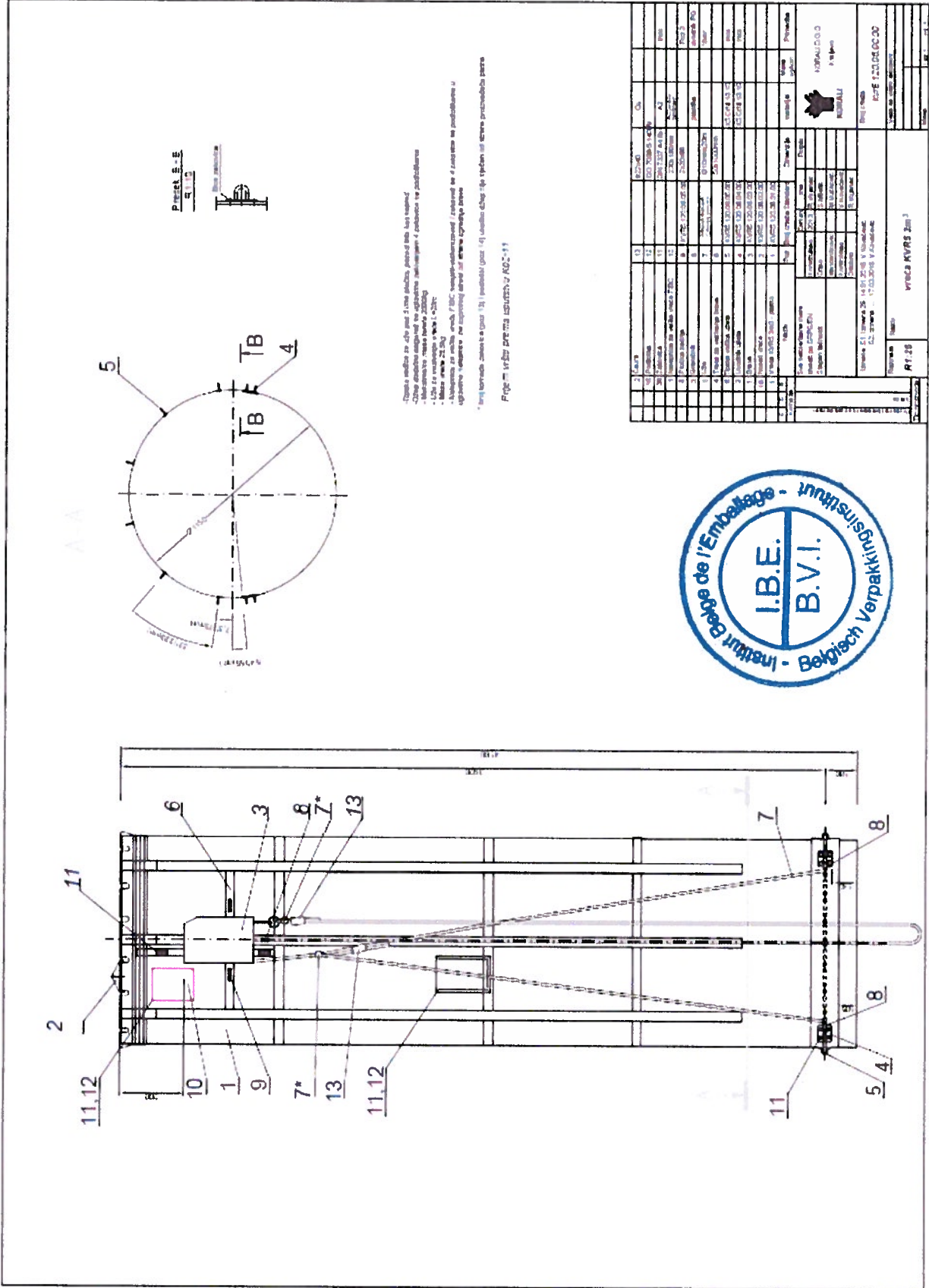
Certificate "IBE-BVI" IBC-16.031/05.16 in attachment

Stéphane Van Camp

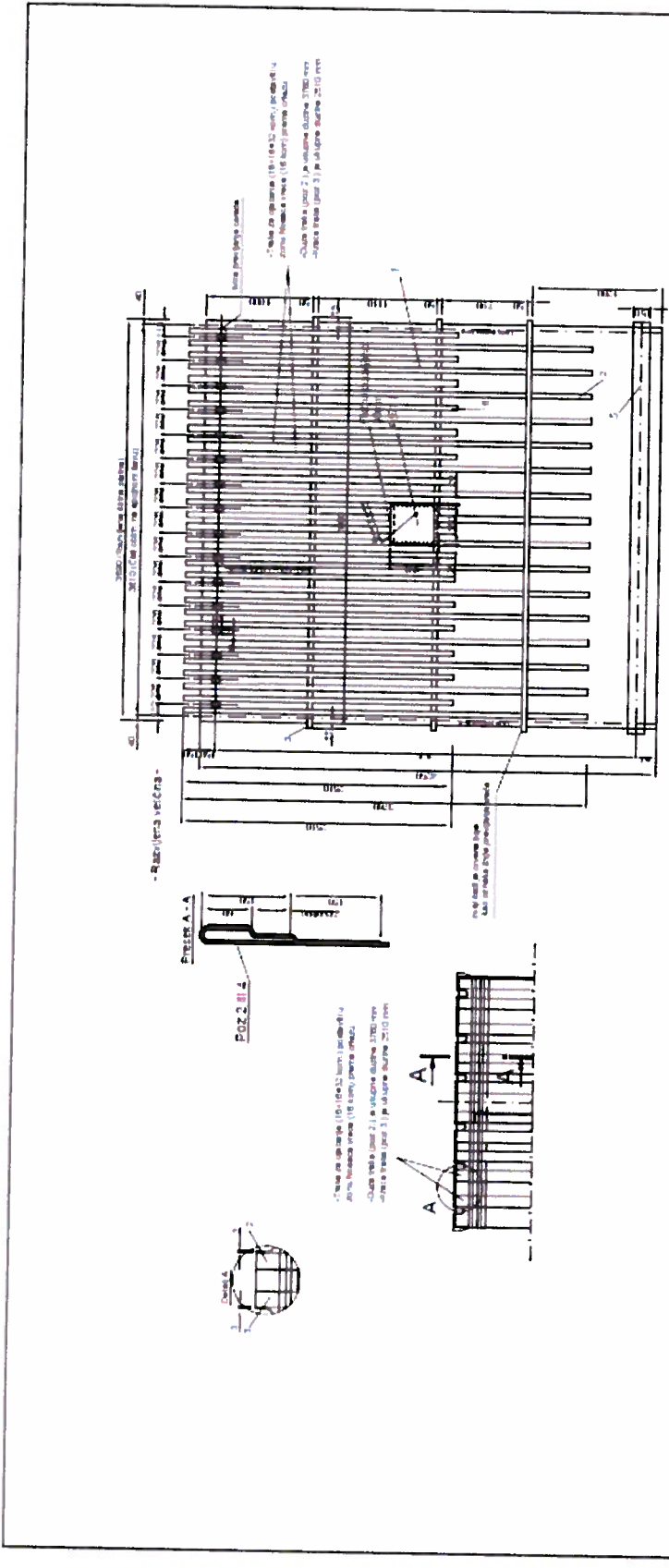
Analyst Packaging Laboratory



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N°	Travaux	Quantité	Unité	Unité	Unité	Unité	Unité	Unité	Unité	Unité
1	Travaux de montage	1	lot	1	lot	1	lot	1	lot	1
2	Travaux de peinture	1	lot	1	lot	1	lot	1	lot	1
3	Travaux de soudure	1	lot	1	lot	1	lot	1	lot	1
4	Travaux de transport	1	lot	1	lot	1	lot	1	lot	1
5	Travaux de livraison	1	lot	1	lot	1	lot	1	lot	1
6	Travaux de démontage	1	lot	1	lot	1	lot	1	lot	1

**Tableau des matériaux**

N°	Matériau	Quantité	Unité	Unité	Unité	Unité	Unité	Unité	Unité
1	Acier S235JR	1	lot	1	lot	1	lot	1	lot
2	Acier S355JR	1	lot	1	lot	1	lot	1	lot
3	Acier S460ML	1	lot	1	lot	1	lot	1	lot
4	Acier S500ML	1	lot	1	lot	1	lot	1	lot
5	Acier S550ML	1	lot	1	lot	1	lot	1	lot
6	Acier S600ML	1	lot	1	lot	1	lot	1	lot

**Tableau des accessoires**

N°	Accessoire	Quantité	Unité	Unité	Unité	Unité	Unité	Unité	Unité
1	Vis	1	lot	1	lot	1	lot	1	lot
2	écrous	1	lot	1	lot	1	lot	1	lot
3	garnitures	1	lot	1	lot	1	lot	1	lot
4	garnitures	1	lot	1	lot	1	lot	1	lot
5	garnitures	1	lot	1	lot	1	lot	1	lot
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**Tableau des autres matériaux**

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Projet vérifié par le service technique de l'Institut Belge de l'Emballage

votre KQRS 3m<sup>2</sup> - plateau

KORAL D.O.O  
Koralevo

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