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INSTITUT BELGE DE L'EMBALLAGE sprl

DATE: Zellik, 12/03/2009

TEST REPORT

REPORT NR: SDL/sdl/IBC-09.020

OBJECT : Tests foreseen for Metal Intermediate Bulk Containers (31A) intended to be used for the transport of dangerous goods of the packaging groups II and III.
Fuelstore 500 liter

Receiving-date samples: 18th of February 2009
Executing date or period of tests: 05th and 06th of March 2009

BY ORDER OF: **FUEL PROOF LTD**
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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

Accuracy of the test results available on request

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1. Presented samples

IBC specification (see drawing N° 5110-A000, 5110-A001 and XXXX-A000 in annex)

The metal IBC of the type 31A consists of a double wall and complies totally with the prescription of the designer, as mentioned in the different regulations.

Type of steel : S275

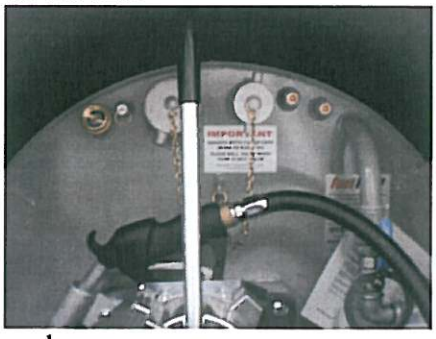
Volume and dimensions

Empty weight	:	370 kg
Dimensions (LxWxH)	:	(1320 x 1070 x 1270) mm
Volume	:	500 liter
Max. filling weight	:	600 kg
Max. gross mass	:	970 kg

Thickness

Outer tank	:	3 mm
Inner tank	:	3 mm
Filling product	:	fuels


General view of the IBC



Connections and pump

2. Test description following the prescriptions of UN recommendations

Tests foreseen in the different regulations :

- Tests foreseen in the UN orange book : "Recommendations on the transport of dangerous goods" Part 6
- IMDG Part 6
- ADR-RID Part 6

A. Bottom lift test

The IBC is loaded to 1,25 times its maximum permissible gross mass (evenly distributed).
The IBC is lifted and lowered twice by a lift truck with the forks centrally positioned.
Total weight : 1220 kg

B. Top lift test

The IBC is filled with water and a load is added and evenly distributed to twice its maximum permissible gross mass, lifted in the manner for which it is designed until clear of the ground and maintained in that position for a period of 5 minutes.
Total weight : 1940 kg

C. Leakproofness test

The test shall be carried out for a period of at least 10 minutes using air at a gauge pressure of not less than 20 kPa (0,2 Bar).

D. Hydraulic pressure test

The test shall be carried out for a period of at least 10 minutes applying an hydraulic pressure not less than 65 kPa and then 10 minutes 200 kPa (2 Bar).

E. Drop test

The IBC is filled for 98% with water and dropped on the most vulnerable part of the base of the IBC. Here was chosen for a diagonally droptest on a short bottom side.
Drop height : 1,20 m

3. Test results

A. Bottom lift test

No deformation of the base of the IBC after having lifting up the container.

B. Top lift test

No deformation of the lifting points.

C. Leakproofness test

No leakage of air.

D. Hydraulic pressure test

No permanent deformation which renders the IBC unsafe for transport, nor leakage.

E. Drop test

No leakage after the drop test

Pictures of the result after drop test

4. Conclusion

The presented Intermediate Bulk Container have successfully passed the tests prescribed for the transport of dangerous goods of the packaging groups II and III and may be used in connection with the following conditions :

Maximal gross mass : 970 kg

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

The IBC's may only be used for the transport of dangerous goods by rail, road or sea with the agreement of the concerned competent authority.

Sven De Leeuw

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IBC and Dangerous Goods Packaging

Zellik, 12/03/2009

Report IBC-09.020

The use of the UN-mark hereafter, is still submitted to the authorization of the competent authority.

The hereafter mentioned IBC :

- metal IBC's (31A)

That are the subject of report :

- IBC-09.020 of the 12th of March 2009

May obtain the hereafter mentioned UN-mark :

31A/Y /* ** **B/995/*/0/970**	* :	month of manufacture
	** :	year of manufacture
	*** :	registration number to be attributed by the compentent authority

as far as the use of the above mentioned IBC in the IMDG and ADR – RID prescriptions are provided for.

The IBC is not designed to be stacked.

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