

## Testing and Technical Service Office

366 Greif Parkway  
Delaware, Ohio 43015  
Phone: 740-657-6565  
Fax: 740-657-6978



June 21, 2018

### UNITED NATIONS/IMO/DOT PERFORMANCE TEST

<b>Report No:</b>	F-1978-XX-061818	<b>Test Type:</b>	Annual Retest
<b>Test Date:</b>	6/18/2018	<b>Plant:</b>	Naperville, IL
<b>Expiration Date:</b>	6/18/2019		

Mr. Mike Mohn,

Attached are our laboratory test result sheets of the UN/DOT Performance Test on the fibre drums that were sent to the Greif - Alsip, IL Technical Center.

These sample containers that were made with the proper components passed the required drop and compression tests for the following UN Marking(s):

1G/X120/S/YR

1G/Y120/S/YR

1G/Z120/S/YR

The tested drums also meet NMFC/UFC standards for a fibre drum up to 400 Lbs. Net Weight Limit and 75 Gallon Capacity.

Thank you and best regards.

PZ:ch

A handwritten signature in black ink, appearing to read "P. Zamperin", written over a horizontal line.

Phil Zamperin

Director Product Technical and Regulatory Support

TESTING and TECHNICAL SERVICE OFFICE



Date Tested: 6/18/2018  
 Report #: F-1978-XX-061818  
 Original Report Date 11/13/2007  
 Closure Notification: F11-F

UNITED NATION/IMO/DOT  
 PERFORMANCE TEST

RETEST DESIGN TYPE RESULT SHEET

Drum Style: Greif Lok Rim Fibre Drum UN Code: 1G Packing Group I  
 GBC Code / Drum Type: LR230 750 U9DSKK000 X00 2N2N00 / LOK-RIM Cover: Steel  
 Dimensions: I.D.: 584.2 MM / 23 In. O.H.: 1090.6 MM / 42.9375 In.

UN Certified Markings: 1G/X120/S/YR USA/GBC 1G/Y120/S/YR USA/GBC 1G/Z120/S/YR USA/GBC

Maximum and Minimum Capacity: 109.8 - 283.9 Litres / 29 - 75 Gallons  
 Test Mass - Gross: 120 KG / 264.6 Lbs.  
 Tare: 8.5 KG / 18.8 Lbs.  
 Net: 111.5 KG / 245.9 Lbs.

Package Preparation: Drums filled with material are filled to no less than the gross test mass shown above and not less than 95% of maximum capacity

Conditioning: 24 Hours at 23°C, ±2°C Temperature and 50%, ±2% Relative Humidity.

**Drop Tests (49 CFR 178.603)**

Drop Height: 1.80 Metres / 70.87 Inches  
 Results Diagonal Top Drop: **3 Drums Passed**  
 Results Diagonal Bottom Drop: **3 Drums Passed**

**Vibration Test (49 CFR 178.608)**

Capable of withstanding, without rupture or leakage, the vibration test procedure in 49 CFR 178.608.

**Leakproofness Test (49 CFR 178.604)**

Air Pressure Applied: \_\_\_\_\_ psi  
 Results after 5 minutes: **Not Applicable**

**Hydraulic (Hydrostatic) Test (49 CFR 178.605)**

Internal (Hydraulic) Pressure: \_\_\_\_\_ kPa for a period of \_\_\_\_\_ minutes  
 Results: **Not Applicable**

**Dynamic Compression Test (49 CFR 178.606)**

Compression Load: ( 5.9 Drums x 120 KG each )  
 1.5 x Static Load = 1,062.0 KG  
 Results: **3 Drums Passed**

TEST RESULTS CERTIFIED BY: **GREIF**  
**TESTING and TECHNICAL SERVICES**

Phil Zamperin  
 Director, Product Technical  
 and Regulatory Support

## GREIF CLOSURE INSTRUCTIONS

Pursuant to the requirements of the Department of Transportation in CFR 49 Part 178.2(c)(1), this method of closure should be used to ensure that your containers have been closed in the same manner as when they were initially tested. If there is any question regarding proper closing methods, contact your local Greif salesperson or manufacturing facility. "Effective until further notice".

**To Close:**

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- 1) Place cover on drum.
  - 2) Snap the closing ring over the cover and top lip of the drum. Make sure that the writing on the closing lever is right side up. Also, make sure the bottom edge of the closing ring engages under the top lip of the drum.
  - 3) Pull the locking lever closed. At the same time, tap along the entire outside edge of the closing ring, beginning directly opposite the closing lever, with a mallet until the lever is fully closed against the edge of the ring.
  - 4) Snap the latch into the lever until it locks, then apply a sealing wire or other sealing device through the holes on the latch lever.
  - 5) Drums closed in this manner have met the UN performance test requirements as specified in the container markings.
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REV-KF-05/03/07

**Drum Code:** LR230 750 U9DSKK000 X00 2N2N00**Report #:** F-1978**Date Tested:** 6/18/2018**Technician:** MC (Sample drums were closed exactly as described above.)

This UN test certification report form is a sample of the closure notification form. The data on this form reflect the components of the tested sample drums; it details the closing methods followed at the lab.

The closure notification form should be completed using information from the actual customer specification. These values may differ from the sample closing instructions supplied with the UN test certification report.

To obtain this form for your customer service use, contact:

Greif - Testing and Technical Services  
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