

**UNITED NATIONS / DOT
PERFORMANCE CERTIFICATION**



31HH1 DESIGN QUALIFICATION

**Poly IBC UC 2.0 1000 Liter All Plastic Composite Euro IBC with
Entegris Quick Connect II & Quick Connect III Dip Tubes
and KTJ Non-Vented Bung Closure**

TEST REPORT #: 24-MN40070



31HH1 / Y / * / USA / +AA11220 / 0 / 2010

* Insert the month and year (last two digits) of manufacture

TESTING PERFORMED FOR:

RIKUTEC AMERICA, INC.
2510-B West Whitner Street
Anderson, SC 29624

ATTN: Alex Pytko

TESTING PERFORMED BY:

TEN-E PACKAGING SERVICES, INC.
1666 County Road 74
Newport, MN 55055
Phone: 651-459-0671
Fax: 651-459-1430

May 30, 2024

TABLE OF CONTENTS

SECTION I: CERTIFICATION 3
SECTIONS II & V: PACKAGING DESCRIPTIONS / COMPONENT DRAWINGS 4
 COMPONENT INFORMATION 5
SECTION III: TEST PROCEDURES AND RESULTS..... 11
 VIBRATION TEST 11
 BOTTOM LIFT TEST 12
 LEAKPROOFNESS TEST 13
 HYDROSTATIC PRESSURE TEST 14
 DROP TEST 15
REGULATORY AND INDUSTRY STANDARD REFERENCES 16
SECTION IV MATHEMATICAL CALCULATIONS 17

NOTES AND COMMENTS

Reference report 24-MN40070A for documentation of the leakproofness and hydrostatic pressure testing conducted on alternate gasket options covered under Rikutec America, Inc. competent authority approval number CA2020110503



TEN-E Packaging Services, Inc.

SECTION I: CERTIFICATION

DESIGN QUALIFICATION of the Rikutec America, Inc.
Poly IBC UC 2.0 1000 Liter All Plastic Composite Euro IBC with Entegris Quick Connect II & Quick Connect III Dip Tubes and KTJ Non-Vented Bung Closure

TEN-E Packaging Services, Inc. is a current DOT UN Third-Party Certification Agency under §107.403 and certifies that the Rikutec America, Inc. packaging referenced above has passed the standards of the DEPARTMENT OF TRANSPORTATION'S TITLE 49 CFR; Performance Oriented Packaging Standards, Section 178. This package is also certified under IMDG and the UN Recommendations on the Transport of Dangerous Goods. It is the responsibility of the end user to determine authorization for use under these regulations. The use of other packaging methods or components other than those documented in this report may render this certification invalid.

SUMMARY OF PERFORMANCE TESTS

Table with 6 columns: UN / DOT TEST, 49 CFR REFERENCE, TEST LEVEL, TEST CONTENTS, TEST COMPLETED, TEST RESULTS. Rows include Vibration, Bottom Lift, Leakproofness, Hydrostatic, Drop, and various certification details like TEST REPORT NUMBER, UN MARKING, and PERFORMANCE STANDARD.

ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY THAT THE PACKAGING TESTED IS MERCHANTABLE OR FIT FOR A PARTICULAR PURPOSE, ARE DISCLAIMED. In no event shall TEN-E Packaging Services, Inc. liability exceed the total amount paid by Rikutec America, Inc. for services rendered. In the event of future changes to the above referenced test standards, it is the responsibility of Rikutec America, Inc. to determine whether additional testing or updating of past testing is necessary to verify that the packaging we have tested remains in compliance with those standards.

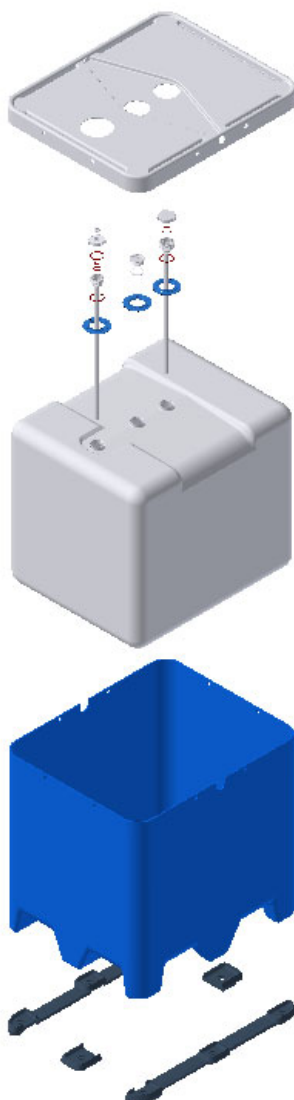
MANUFACTURER:
Rikutec America, Inc.
2510-B West Whitner Street
Anderson, SC 29624

Oscar Mejia
Technician
TEN-E Packaging Services, Inc.
1666 County Road 74
Newport, MN 55055


Tyler Kinderman
Packaging Engineer
TEN-E Packaging Services, Inc.
1666 County Road 74
Newport, MN 55055

SECTIONS II & V: PACKAGING DESCRIPTIONS / COMPONENT DRAWINGS

Poly IBC UC 2.0 1000 Liter All Plastic Composite Euro IBC with Entegris Quick Connect II & Quick Connect III Dip Tubes and KTJ Non-Vented Bung Closure

ASSEMBLY DRAWING	TEST LEVELS		
	Certification Type:	Design Qualification	
	Packaging Code Designation:	31HH1	
	Packaging Group:	II	
	Specific Gravity:	1.9	
	Test Pressure:	100 kPa	
	TEST SAMPLE PREPARATION (Refer to Section IV)		
	Overall IBC Tare Weight: (Sample #1 and Sample #2)	96.0 Kg	211.6 Lbs.
	Net Fill Weight (98% Maximum Capacity):		
	Water (Sample #1)	1,033.9 Kg	2,279.4 Lbs.
	Methanol/Water (Sample #2)	953.6 Kg	2,102.4 Lbs.
	IBC Test Weight:		
	Water (Sample #1)	1,129.9 Kg	2,490.9 Lbs.
	Methanol/Water (Sample #2)	1,049.6 Kg	2,313.9 Lbs.
	Maximum Permissible Gross Mass:	2,060.4 Kg	4,542.3 Lbs.
	CLOSING METHODS		
Entegris Quick Connect II Dip Tube:			
Application Torque:	25 Ft-Lbs.		
Equipment:	Torque Wrench #740		
Entegris Quick Connect III Dip Tube:			
Application Torque:	25 Ft-Lbs.		
Equipment:	Torque Wrench #740		
(2) Entegris Quick Connect Shipping Caps:			
Application Torque:	7 Ft-Lbs.		
Equipment:	Torque Wrench #740		
2" KTJ Non-Vented Bung Closure:			
Application Torque:	25 Ft-Lbs.		
Equipment:	Torque Wrench #740		

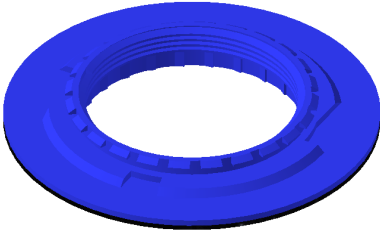


COMPONENT INFORMATION

CLOSURE (21300102)		DRAWING
Manufacturer: Kunststofftechnik Jaeger, Braunschweig, Germany		
Description:	2" Non-Vented Buttress Threaded Plug	
Quantity:	2	
Material:	Polyethylene, Natural	
Tare Weight:	35.513 Grams	
Overall Dimensions:		
• Height	34.5 mm (1.358")	
• Diameter	78.7 mm (3.102")	
Thread Dimensions:		
• Major Diameter:	61.9 mm (2.437")	
• Minor Diameter:	54.9 mm (2.162")	
Markings (QC Audit):	1	
POE PROFILE GASKET (22010202):		
Description:	Natural Polyolefin Profile Gasket	
Tare Weight:	2.881 Grams	
Thickness:	3.8 mm (0.15")	
Diameter:	72.5 mm (2.85")	

3/4" PLUG (DIT-1J-22-000)		DRAWING
Manufacturer: Entegris, Chaska, MN		
Description:	3/4" NPT Threaded Plug	
Quantity:	1	
Material:	High Density Polyethylene, Natural	
Tare Weight:	4.563 Grams	
Overall Dimensions:		
• Height	14.9 mm (0.59")	
• Diameter	29.5 mm (1.16")	
Thread Dimensions:		
• T	25.9 mm (1.02")	
• E	23.3 mm (0.92")	
Markings (QC Audit):	None	
CLOSURE (DIT-1J-22-000)		
Manufacturer: Entegris, Chaska, MN		
Description:	Quick Connect II Shipping Cap for Drum Insert	
Quantity:	1	
Material:		
• Inner	PFA, Natural	
• Outer	Polyethylene, Natural	
Tare Weight:	77.543 Grams	
Overall Dimensions:		
• Height	28.3 mm (1.11")	
• Diameter	100.7 mm (3.96")	
Thread Dimensions:		
• Major Diameter	74.0 mm (2.91")	
• Minor Diameter	70.2 mm (2.76")	
Thread Dimensions:		
• Major Diameter	26.6 mm (1.05")	
• Minor Diameter	24.0 mm (0.94")	
Markings (QC Audit):	PATENT NO. 5,108,015 Entegris Symbol	

DIP TUBE – QUICK CONNECT II DRUM INSERT (DIT-1J-22-000)		DRAWING
Manufacturer: Entegris, Chaska, MN		
Description:	Quick Connect II Threaded Drum Insert with Dip Tube and Secondary Tube	
Quantity:	1	
Material:	PFA, Natural	
Tare Weight:	677 Grams	
Overall Dimensions:		
• Height	Insert: 36.3 mm (1.43") With Dip Tube: 1,030.7 mm (40.58")	
• Diameter	73.4 mm (2.89")	
Thread Dimensions (Container - Side):		
• Major Diameter	62.8 mm (2.47")	
• Minor Diameter	55.7 mm (2.19")	
Thread Dimensions (Shipping Cap - Side):		
• Major Diameter	72.8 mm (2.87")	
• Minor Diameter	69.1 mm (2.72")	
Markings (QC Audit):	445 0823-17483608-22 44A ENTEGRIS 12 H3D893664	
O-RING		
Description:	Large, Medium, and Small Internal FEP Encapsulated O-Rings, Red	
Large Gasket:		
• Tare Weight	2.969 Grams	
• Thickness	3.3 mm (0.13")	
• Diameter	57.4 mm (2.26")	
Medium Gasket:		
• Tare Weight	1.871 Grams	
• Thickness	3.6 mm (0.14")	
• Diameter	37.0 mm (1.46")	
Small Gasket:		
• Tare Weight	0.618 Grams	
• Thickness	2.5 mm (0.10")	
• Diameter	22.4 mm (0.88")	
O-RING (01-004408C)		
Description:	Outer Bottom FEP Encapsulated O-Ring, Red	
Tare Weight:	9.426 Grams	
Thickness:	6.1 mm (0.24")	
Diameter:	77.7 mm (3.06")	

SHIPPING CAP (DI3T3-1J-22-000-0)		DRAWING
Manufacturer: Entegris Inc., Chaska, MN		
Description:	Quick Connect III Insert Shipping Cap	
Quantity:	1	
Material:		
• Closure:	Polyethylene, (Entegris #312)	
• Liner	PFA, Natural (Entegris #1005)	
Tare Weight:	80 Grams	
Density:		
Overall Dimensions:		
• Height	1.17"	
• Diameter	3.99"	
Thread Dimensions:		
• Major	3.324"	
• Minor	3.182"	
Markings (QC Audit):	Entegris Sentry™	
O-RING		
Description:	FEP Encapsulated O-Ring	
Tare Weight:	2.594 Grams	
Thickness:	0.136"	
Diameter:	2.029"	
SUMP INSERT (DI3T3-1J-22-000-0)		
Manufacturer: Entegris Inc., Chaska, MN		
Description:	Quick Connect III Insert Assembly	
Quantity:	1	
Material:	PFA, Natural (Entegris #158 / #1005)	
Tare Weight:	390 Grams	
Overall Dimensions:		
• Diameter	3.414"	
• Insert Height	2.097"	
• Overall Height	38.75"	
Thread Dimensions (Shipping Cap):		
• Major	3.274"	
• Minor Diameter	3.120"	
Thread Dimensions (Drum):		
• Major	2.466"	
• Minor	1.194"	
Markings (QC Audit):	ENTEGRIS 12209949-8L 44A 16 101605803	
O-RING (01-004408C)		
Description:	FEP Encapsulated O-Ring	
Tare Weight:	9.347 Grams	
Thickness:	0.233"	
Diameter:	3.036"	

CLAMING NUT (2.0)		DRAWING
Manufacturer: Rikutec America, Inc., Whitinsville, MA		
Description:	Outer Buttress Threaded Bulkhead Fitting used on 2.0 IBC designs	
Quantity:	3 (1 on each opening)	
Material:	Polyethylene, Blue, and Black Rubber	
Tare Weight:	60 Grams	
Overall Dimensions:		
• Height	0.758"	
• Diameter	5.905"	
Thread Dimensions:		
• T	3.446"	
• E	3.245"	
Markings (QC Audit):	RIKUTEC 12/23 SPI "2" Recycling Symbol	
PLASTIC INNER RECEPTACLE (11001047)		DRAWING
Manufacturer: Rikutec America, Inc., Whitinsville, MA		
Description:	Rikutec 2.0 1000 Liter Rigid Inner Receptacle with (3) 2" Buttress Threaded Top Fill Port Openings	
Material:	High Density Polyethylene, Natural	
Resin Type:	Two Layer Wall Design: <ul style="list-style-type: none"> • Inside: Lupolen 4261 A Q149 • Outside: Lupolen 4261 AG UV 60005 	
Method of Manufacture:	Blow Molded	
Tare Weight:	50.71 Lbs. (23.0 Kg)	
Capacity:		
• Rated	1,000 Liter	
• Overflow	278.7 Gallons (1,055.0 Liters)	
Overall Dimensions:		
• Length	1,155.7 mm (45.50")	
• Width	962.5 mm (37.88")	
• Height	1,044.7 mm (41.13")	
2" Fill Port Opening Thread Dimensions		
• Major Diameter	64.8 mm (2.55")	
• Minor Diameter	57.1 mm (2.25")	
Clamping Nut Thread Dimensions		
• Major Diameter	85.5 mm (3.37")	
• Minor Diameter	81.2 mm (3.20")	
Dip Tube Opening Thread Dimensions		
• Major Diameter	64.8 mm (2.55")	
• Minor Diameter	57.4 mm (2.26")	
Wall Thickness (Min.):	2.387 mm (0.09")	
Markings (QC Audit):	 31HH1 / Y / 0124 / D / BAM 6808-RIKUTEC RIKUTEC Made in Germany 23H245550MD7 14783 SPI "2" PE-HD Recycling Symbol	


COVER – POLY BOX (2.0)		DRAWING
Manufacturer: Rikutec America, Inc., Whitinsville, MA		
Description:	Top HUVEX with (3) Access Holes Secured to Tote with (8) Plastic Pins	
Quantity:	1	
Material:	High Density Polyethylene, Gray	
Tare Weight:	10.2 Kg (22.49 Lbs.)	
Overall Dimensions:		
• Length	1,212.9 mm (47.75")	
• Width	1,003.3 mm (39.50")	
• Height	962.2 mm (37.88")	
• Small Hole Diameter	142.0 mm (5.63")	
• Large Hole Diameter	177.8 mm (7.00")	
Markings (QC Audit):	<p> u n 31HH1 / Y / 0124 / D / BAM / 6808 RIKUTEC/ 3314 / 2070 / TRBF142 POLY-IBC UC 1000 Max Capacity 1060 Liter / Tare 96kg Gauge of Pressure: 100 kPa Hersteller: RIKUTEC Made in Germany SPI "2" PE HD Recycling Symbol </p>	
EURO BASE – POLY BOX		
Manufacturer: Rikutec America, Inc., Whitinsville, MA		
Description:	4-Way Entry Plastic Outer Tote	
Quantity:	1	
Material:	HDPE / Foam / HDPE	
Tare Weight:	63.5 Kg (140.0 Lbs.) (with Bottom Frame)	
Overall Dimensions:		
• Length	1,193.8 mm (47.00")	
• Width	990.6 mm (39.00")	
• Height	1,168.4 mm (46.00")	
EURO PALLET		
Description:	Molded Pallet Feet and Bottom Detachable Plastic Euro Pallet with (8) Plastic Screws and Bolts	
Markings (QC Audit):		
• Frame	SPI "2" PE-HD Recycling Symbol	
• Box	None	

SECTION III: TEST PROCEDURES AND RESULTS

VIBRATION TEST

TEST INFORMATION		TEST CRITERIA
TEST CONTENTS:	Water	<ul style="list-style-type: none"> An IBC passes the vibration test if there is no rupture or leakage. (§178.819)
SAMPLE PREPARATION:	Refer to Section II	
CONDITIONING:	Ambient	
TABLE DISPLACEMENT:	1"	
TEST FREQUENCY:	3.7 Hz	
TEST DURATION:	1 Hour	
TEST EQUIPMENT:	Vertical motion using L.A.B. 10000 Transportation Simulator	





VIBRATION TEST SET-UP AND RESULTS (SAMPLE #1)

	Results	Comments/Observations
	PASS	The IBC met the criteria for passing the test. No leakage or damage.

BOTTOM LIFT TEST

TEST INFORMATION		TEST CRITERIA
TEST CONTENTS:	Water	<ul style="list-style-type: none"> For all IBC design types designed to be lifted from the base, there may be no permanent deformation which renders the IBC unsafe for transportation and no loss of contents. (§178.811)
SAMPLE PREPARATION:	Refer to Section II	
CONDITIONING:	Ambient	
NUMBER OF LIFTS:	8 (Four-Way Entry with 2 Lifts per Direction of Entry)	
FORK TINE PENETRATION:	Entry 1 & 2: 36" Entry 3 & 4: 30"	
COMBINED GROSS MASS LIFTED:	2,717.5 Kg (5,991.0 Lbs.) (Refer to Section IV)	
TEST EQUIPMENT:	Fork Truck Dead Load Weights	

BOTTOM LIFT TEST SET-UP AND RESULTS (SAMPLE #1)

Direction of Entry #1	Direction of Entry #2	Direction of Entry #3	Direction of Entry #4
			
Results		Comments/Observations	
Lift #1: PASS	Lift #5: PASS	The IBC met the criteria for passing the test. No leakage or damage.	
Lift #2: PASS	Lift #6: PASS		
Lift #3: PASS	Lift #7: PASS		
Lift #4: PASS	Lift #8: PASS		

LEAKPROOFNESS TEST

TEST INFORMATION		TEST CRITERIA
TEST CONTENTS:	Empty	<ul style="list-style-type: none"> For all IBC design types intended to contain solids that are loaded or discharged under pressure or intended to contain liquids, there may be no leakage of air from the IBC. (§178.813)
SAMPLE PREPARATION:	Refer to Section II	
CONDITIONING:	Ambient	
TEST PRESSURE:	20 kPa	
TEST DURATION:	10 Minutes	
AREA OF PRESSURIZATION:	Through Top Head	
TEST EQUIPMENT:	Regulated Air Source #: 2 Pressure Gauge #: 615 & 641	




LEAKPROOFNESS TEST SET-UP AND RESULTS (SAMPLE #1)

Set-Up Photo	Leakproofness Photo	Leakproofness Photo
Results	Comments/Observations	
PASS	The IBC met the criteria for passing the test. No leakage.	

HYDROSTATIC PRESSURE TEST

TEST INFORMATION		TEST CRITERIA
TEST CONTENTS:	Water	<ul style="list-style-type: none"> For rigid plastic and composite IBC design types intended to contain solids loaded or discharged under pressure or intended to contain liquids, there may be no leakage and no permanent deformation which renders the IBC unsafe for transportation. (§178.814)
WATER TEMPERATURE:	20.3°C (68.5°F)	
FILL CAPACITY:	Maximum Capacity	
SAMPLE PREPARATION:	Refer to Section II	
CONDITIONING:	Ambient	
TEST PRESSURE:	100 kPa	
TEST DURATION:	10 Minutes	
AREA OF PRESSURIZATION:	Through Top Head	
TEST EQUIPMENT:	Regulated Water Source #: 2 Pressure Gauge #: 641	



HYDROSTATIC PRESSURE TEST SET-UP AND RESULTS (SAMPLE #1)

Set-Up Photo	Hydrostatic Pressure Photo	Hydrostatic Pressure Photo
		
Results	Comments/Observations	
PASS	The IBC met the criteria for passing the test. No leakage.	

DROP TEST

TEST INFORMATION		TEST CRITERIA
TEST CONTENTS:	Methanol/Water Solution (0.963 SG)	<ul style="list-style-type: none"> For all IBC design types, there may be no damage which renders the IBC unsafe to be transported for salvage or for disposable, and no loss of contents. The IBC shall be capable of being lifted by an appropriate means until clear of the floor for five minutes. A slight discharge from closures upon impact is not considered a failure provided that no further leakage occurs. (§178.810)
SAMPLE PREPARATION:	Refer to Section II	
CONDITIONING:	-18°C (0°F) Chamber #202	
TEST CONTENTS TEMP.:	-18.3°C (0.9°F)	
DROP HEIGHT:	1.9 Meters (75") (Refer to Section IV)	
DROP ORIENTATION:	Most Vulnerable Part of Base	
TEST EQUIPMENT:	Quick Release Hook Mechanism 5 Ton Overhead Hoist	

DROP TEST SET-UP AND RESULTS (SAMPLE #3)

Set-Up Photo	Post Drop Photo	Post Drop Photo
		
Results	Comments/Observations	
PASS	The IBC met the criteria for passing the test. No leakage. All three clamping nuts broke off the bottle and a crack on the side wall of the outer shell.	

REGULATORY AND INDUSTRY STANDARD REFERENCES

REGULATORY REFERENCES

TEST	49 CFR ^①	UN ^②	IMDG ^③
	October 2023 Edition	23 rd Edition	2022 Edition
Vibration:	178.819	6.5.6.13	6.5.6.13
Bottom Lift:	178.811	6.5.6.4	6.5.6.4
Leakproofness:	178.813	6.5.6.7	6.5.6.7
Hydrostatic Pressure:	178.814	6.5.6.8	6.5.6.8
Drop:	178.810	6.5.6.9	6.5.6.9

① United States Department of Transportation Code of Federal Regulations (CFR) Title 49, Transportation, Parts 100-185

② The United Nations Recommendations on the Transport of Dangerous Goods – Model Regulations (UN – Orange Book)

③ International Maritime Dangerous Goods Code (IMDG)

INDUSTRY STANDARD REFERENCES

Vibration:	ASTM ^④ D7387:	Standard Test Method for Vibration Testing of IBCs Used for Shipping Liquid Hazardous Materials (Dangerous Good)
	ISO ^⑤ 2247:	Packaging – Complete, Filled Transport Packages – Vibration Test at Fixed Low Frequency
Pressure:	ASTM ^④ D8134:	Standard Guide for Conducting Internal Hydrostatic Pressure Tests on United Nations (UN) IBC Design Types
Drop:	ASTM ^④ D5276:	Standard Test Method for Drop Test of Loaded Containers by Free Fall
	ASTM ^④ D7790:	Standard Test Method for the Preparation of Plastic Packagings Containing Liquids for United Nations (UN) Drop Testing
	ISO ^⑤ 2248:	Packaging – Complete, Filled Transport Packages – Vertical Impact Test by Dropping

④ American Society for Testing and Materials (ASTM)

⑤ International Organization for Standardization (ISO)

EQUIPMENT

All inspection, measuring and test equipment that can affect product quality is calibrated and adjusted at prescribed intervals, or prior to use, and is traceable to NIST, using ANSI Z540 as an overall guide for calibration certification.



TEN-E Packaging Services, Inc.

SECTION IV MATHEMATICAL CALCULATIONS

INFORMATION USED FOR CALCULATIONS

Overall IBC Tare Weight (IBCTW)- Sample 1:	96.0 Kg	211.6 Lbs.
Overall IBC Tare Weight (IBCTW)- Sample 2:	96.0 Kg	211.6 Lbs.
Overflow Capacity (OFC):		
Water	1,055.0 Kg	2,325.9 Lbs.
Methanol/Water	973.0 Kg	2,145.1 Lbs.
Actual Load Applied for Bottom Lift (BLALA):	1,587.6 Kg	3,500.0 Lbs.
Packing Group	II	
Product Specific Gravity (PSG):	1.90	Min Wt To Be Applied
Packing Group Multiplication Factor (MF):	1.00	3,187.0 Lbs. (Btm Lift)
# of IBC Stacked During Transportation (#IBC):	0	

98% OF OVERFLOW

Overflow Capacity (OFC) x 98%

<u>OFC</u>	x	<u>98%</u>					
1,055.0	x	98% =	1,033.9	Kg	2,279.4	Lbs. Water	Sample #1
973.0	x	98% =	953.6	Kg	2,102.4	Lbs. Methanol/Water	Sample #2

IBC TEST WEIGHT (IBCW)

Overall IBC Tare Weight (IBCTW) + 98% Overflow Capacity (OFC)

<u>IBCTW</u>	+	<u>98% OFC =</u>					
96.0	+	1,033.9	1,129.9	Kg	2,490.9	Lbs. Water	Sample #1
96.0	+	953.6	1,049.6	Kg	2,313.9	Lbs. Methanol/Water	Sample #2

AUTHORIZED IBC GROSS MASS (AIBCGM)

Overall IBC Tare Weight (IBCTW) + (Product SG (PSG) x 98% Overflow (OFC))

<u>IBCTW</u>	+	<u>(PSG</u>	x	<u>98% OFC)</u>			
96.0	+	1.90	x	1,033.9			
		2,060.4	Kg	4,542.3	Lbs.		



TEN-E Packaging Services, Inc.

BOTTOM LIFT CALCULATIONS

The IBC must be loaded to 1.25 times the combined maximum permissible gross mass with load being evenly distributed

Minimum Required Load

Authorized IBC Gross Mass x 1.25

<u>ABCGM</u>	x	<u>1.25</u>	=	<u>Minimum Required Load</u>		
2,060.4	x	1.25	=	2,575.6 Kg	5,678.2	Lbs.

Combined Gross Mass Lifted

Actual Load Applied (ALA) + IBC Test Weight (IBCW)

<u>IBCW</u>	+	<u>ALA</u>	=	<u>Total Load Lifted</u>		
1,129.9	+	1,587.6	=	2,717.5 Kg	5,991.0	Lbs.

DROP HEIGHT

Calculation For Product Specific Gravities Exceeding 1.2

Product Specific Gravity (PSG) x Packing Group Multiplication Factor (MF)

<u>PSG</u>	x	<u>MF</u>		Packing Group:	II
1.90	x	1.00		<u>Required Drop Height</u>	<u>Actual Drop Height</u>
		1.90	Meter	74.8 Inches	75 Inches