TEN-E Packaging Services, Inc.

UNITED NATIONS / DOT PERFORMANCE CERTIFICATION



4G PERIODIC RETEST

6 x 500 mL Square Plastic Bottle Packaging with Two Closure Variables

TEST REPORT #: 26-CA20128

un 4G / Y7.5 / S / **
USA / +CC7197

**Insert the last two digits of the year of manufacture

TESTING PERFORMED FOR:

PUREPAK TECHNOLOGY CORPORATION
75 West Baseline Road Suite D44
Gilbert, AZ 85233

ATTN: Michael Dodd

TESTING PERFORMED BY:

TEN-E PACKAGING SERVICES, INC.
326 North Corona Avenue
Ontario, CA 91764
Phone: 909-937-1260
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September 21, 2026

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TABLE OF CONTENTS

SECTION I: CERTIFICATION **3**
SECTIONS II & V: PACKAGING DESCRIPTIONS / COMPONENT DRAWINGS **4**
COMPONENT INFORMATION 6
SECTION III: TEST PROCEDURES AND RESULTS **9**
DROP TESTS Variable #1: 38-439 Polypropylene Closure 9
DROP TESTS Variable #2: 45mm HDPE TE Closure 10
STACKING TEST 11
PRESSURE DIFFERENTIAL TEST Variable #1: 38-439 Polypropylene Closure 12
PRESSURE DIFFERENTIAL TEST Variable #2: 45mm HDPE TE Closure 13
VIBRATION TEST Variable #1: 38-439 Polypropylene Closure 14
VIBRATION TEST Variable #2: 45mm HDPE TE Closure 15
COBB WATER ABSORPTION TEST 16
REGULATORY AND INDUSTRY STANDARD REFERENCES **17**
SECTION IV: MATHEMATICAL CALCULATIONS **18**

NOTES AND COMMENTS

Testing was conducted on the 6 x 500 mL Square Plastic Bottle with the following Closure Variables:

- Variable #1: 38-439 Polypropylene Closure
- Variable #2: 45mm HDPE Tamper Evident Closure

This package uses DOT-SP 14656. This special permit authorizes the manufacture, mark, sale, and use of certain combination packaging for the transportation in commerce of the hazardous materials authorized by this special permit. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.

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SECTION I: CERTIFICATION

Periodic Retest of the PurePak Technology Corporation
6 x 500 mL Square Plastic Bottle Packaging with Two Closure Variables

TEN-E Packaging Services, Inc. is a current DOT UN Third-Party Certification Agency under §107.403 and certifies that the **PurePak Technology Corporation** 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, ICAO/IATA Regulations 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

UN / DOT TEST	49 CFR REFERENCE	TEST LEVEL	TEST CONTENTS	TEST COMPLETED	TEST RESULTS
Drop	178.603	1.9 m	Methanol/Water Solution	August 5, 2026	PASS
Stacking	178.606	113.4 Kg – 24 Hours	Empty	August 5, 2026	PASS
Pressure	173.27	300 kPa - 30 Minutes	Water	August 11, 2026	PASS
Vibration	178.608	3.0 Hz – 1 Hour	Water	August 5, 2026	PASS
Cobb	178.516	30 Minutes	---	September 21, 2026	PASS

TEST REPORT NUMBERS:	26-CA20128, 16-CA20136
UN MARKING: (CFR 49 – 178.503)	(un) 4G / Y7.5 / S / ** USA / +CC7197
PACKAGING IDENTIFICATION CODE:	4G - Fiberboard Box (178.516)
PERFORMANCE STANDARD:	Y (Packaging meets Packing Group II and III tests)
AUTHORIZED GROSS MASS:	7.5 Kg (16.5 Lbs.)
"S" DESIGNATION:	Denotes Inner Packagings
YEAR OF MANUFACTURE:	**Insert the last two digits of the year of manufacture
STATE AUTHORIZING THE MARK:	USA
PACKAGING CERTIFICATION AGENCY:	(+CC) TEN-E Packaging Services, Inc. (Ontario, CA CAA #2006030021)
THIRD PARTY PACKAGING IDENTIFICATION:	+CC7197
PERIODIC RETEST DATE:	September 21, 2028
CLIENT CA OR SP NUMBER:	DOT-SP 14656

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 **PurePak Technology Corporation** for services rendered. In the event of future changes to the above referenced test standards, it is the responsibility of **PurePak Technology Corporation** 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:
PurePak Technology Corporation
75 West Baseline Road Suite D44
Gilbert, AZ 85233

Matthew C. Anderson
Project Manager
TEN-E Packaging Services, Inc.
326 North Corona Avenue
Ontario, CA 91764

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SECTIONS II & V: PACKAGING DESCRIPTIONS / COMPONENT DRAWINGS

Variable #1: 6 x 500 mL Square Plastic Bottle with 38-439 Polypropylene Closure

ASSEMBLY DRAWING





TEST LEVELS		
Certification Type:	Periodic Retest	
Packaging Code Designation:	4G	
Packing Group:	II	
Specific Gravity:	1.9	
Internal Pressure:	300 kPa	
TEST SAMPLE PREPARATION (Refer to Section IV)		
Overall Packaging Tare Weight:	622 Grams	
Fill Capacity (98% Maximum Capacity):		
Methanol/Water Solution	584 Grams	
Water	608 Grams	
Package Test Weight:		
Methanol/Water Solution	4.1 Kg	9.0 Lbs.
Water	4.2 Kg	9.2 Lbs.
Authorized Package Gross Mass:	7.5 Kg	16.5 Lbs.
CLOSING METHODS – INNER PACKAGING		
38mm Polypropylene Closure		
Application Torque:	50 In-Lbs.	
Equipment:	Torque Wrench #W702	
CLOSING METHODS – SHIPPER		
Top Flaps:		
Manufacturer: 3M, St. Paul, MN		
Type:	3M MMM115894 Pressure Sensivtive Tape	
Width:	48 mm (2")	
Overlap:	2" Minimum	
Tape Pattern:	Center Seam	
Bottom Flaps:		
Manufacturer: 3M, St. Paul, MN		
Type:	3M MMM115894 Pressure Sensivtive Tape	
Width:	48 mm (2")	
Overlap:	2" Minimum	
Tape Pattern:	Center Seam	

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Variable #2: 6 x 500mL Square Plastic Bottle with 45mm HDPE TE Closure

ASSEMBLY DRAWING





TEST LEVELS

Certification Type:	Periodic Retest	
Packaging Code Designation:	4G	
Packing Group:	II	
Specific Gravity:	1.9	
Internal Pressure:	300 kPa	

TEST SAMPLE PREPARATION
(Refer to Section IV)

Overall Packaging Tare Weight:	632 Grams	
Fill Capacity (98% Maximum Capacity):		
Methanol/Water Solution	595 Grams	
Water	615 Grams	
Package Test Weight:		
Methanol/Water Solution	4.2 Kg	9.2 Lbs.
Water	4.3 Kg	9.4 Lbs.
Authorized Package Gross Mass:	7.6 Kg	16.7 Lbs.

CLOSING METHODS – INNER PACKAGING

45mm HDPE TE Closure	
Application Torque:	25 In-Lbs.
Equipment:	Torque Wrench #W702

CLOSING METHODS – SHIPPER

Top Flaps:

Manufacturer: 3M, St. Paul, MN	
Type:	3M MMM115894 Pressure Sensivtive Tape
Width:	48 mm (2")
Overlap:	2" Minimum
Tape Pattern:	Center Seam

Bottom Flaps:

Manufacturer: 3M, St. Paul, MN	
Type:	3M MMM115894 Pressure Sensivtive Tape
Width:	48 mm (2")
Overlap:	2" Minimum
Tape Pattern:	Center Seam

For Packaging's with an Established Gross Mass:

If the gross mass calculation in this report exceeds the previously established gross mass, the manufacturer may elect to maintain the current gross mass marking (e.g. the gross mass rating of the UN marking on the packaging may be less than the calculated gross mass indicated in this report) or use the newly established gross mass. In no event shall the gross mass marking on the packaging exceed the gross mass to which the packaging was tested.

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COMPONENT INFORMATION

CLOSURE (QIM-317-4937-A) (50093)	
Manufacturer: Berry Plastics, Evansville, IN	
Description:	38mm Ribbed Threaded Closure
Quantity:	6
Material:	Polypropylene
Tare Weight:	0.70 Grams
Overall Dimensions:	
• **Height**	1.016” ± 0.015”
• **Diameter**	1.701” ± 0.015”
Thread:	
• **Type**	38mm
• **Style**	439
Thread Dimensions:	
• **T**	1.481” ± 0.007”
• **E**	1.389” ± 0.007”
Markings (QC Audit):	3
LINER:	
Description:	Polyethylene Foam Liner
Tare Weight:	0.69 Grams
Thickness:	0.060”
Diameter:	1.379”
PLASTIC BOTTLE (1046059)	
Manufacturer: PurePak Technology, Gilbert, AZ	
Description:	500m Round Plastic Bottle
Quantity:	6
Material:	High Density Polyethylene
Method of Manufacture:	Blow Molded
Tare Weight:	50 Grams
Capacity:	
• **Rated**	500 mL
• **Overflow**	620 mL (20.9 Ounces)
Overall Dimensions:	
• **Height**	7.006” ± 0.060”
• **Diameter**	3.071” ± 0.060”
Thread Dimensions:	
• **T**	1.461” ± 0.010”
• **E**	1.374” ± 0.010
Wall Thickness:	
• **Minimum**	0.027”
Markings (QC Audit):	SPI “2” HDPE Recycling Symbol 1 11/24

DRAWING

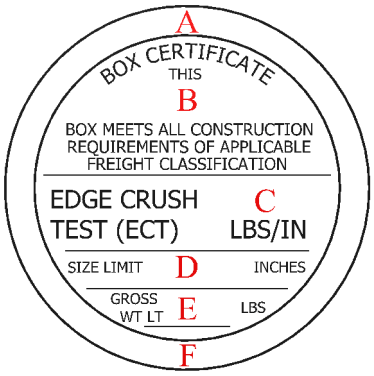


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CLOSURE (500001)		DRAWING
Manufacturer: George MENSHEN Gmbh, Finnentrop, Germany		
Description:	45mm Ribbed Threaded Tamper Evident Closure	
Quantity:	6	
Material:	High Density Polyethylene	
Tare Weight:	10.59 Grams	
Overall Dimensions:		
• **Height**	31.5mm ± 0.39mm	
• **Diameter**	51.3mm	
Thread:		
• **Type**	45mm	
• **Style**	Buttress	
Thread Dimensions:		
• **T**	1.744”	
• **E**	1.674”	
Markings (QC Audit):	2817.1 3	
LINER:		
Description:	PTFE Liner	
Tare Weight:	1.00 Grams	
Thickness:	0.0100”	
Diameter:	1.799”	
PLASTIC BOTTLE (1046096)		
Manufacturer: PurePak Technology, Gilbert, AZ		
Description:	500 mL Round Plastic Bottle	
Quantity:	6	
Material/Pigment:	High Density Polyethylene / Natural	
Method of Manufacture:	Blow Molded	
Tare Weight:	51 Grams	
Capacity:		
• **Rated**	500 mL	
• **Overflow**	627 mL (21.1Ounces)	
Overall Dimensions:		
• **Height**	7.000” ± 0.060”	
• **Diameter**	3.071” ± 0.060”	
Thread Dimensions:		
• **T**	1.772” ± 0.010”	
• **E**	1.644” ± 0.010”	
Wall Thickness:		
• **Minimum**	0.025”	
Markings (QC Audit):	SPI “2” HDPE Recycling Symbol 11/24 2	

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SHIPPER (Project #: P369-14230-3 / Design #: 3690203809-3)		
Manufacturer: Cactus Container, Phoenix, AZ		
Description:	Regular Slotted Container	
Material/Flute (Outer to Inner):	Double Wall Natural Corrugated Fiberboard; C/B-Flute	
Basis Weight (Outer to Inner) Lbs./MSF:		
• **Specification**	35 / 23 / 35 / 23 / 35	
Tare Weight:	277 Grams	
DIMENSIONS		
	Specification Dimensions (Inside)	**Measured Dimensions (Outside)**
• **Length**	9-3/8”	9-7/8”
• **Width**	6-5/16”	7”
• **Height**	7-1/8”	8-3/8”
Board Caliper (Nominal):	0.249”	
Manufacturer’s Joint:	Inside Glued, 1-3/8” Lap	
Markings (QC Audit):	u n 4G / Y7.5 / S / 24 USA / +CC7197 DOT-SP 14656 ART WORK DATE 09-30-24 9 3/8 X 6 15/16 X 7 1/8 ID 1529 THIS SIDE UP	

BOX CERTIFICATE		
(A) Corrugated Manufacturer:	CACTUS CONTAINER, L.L.C.	
(B) Structure:	Double Wall	
(C) ECT:	51 Lbs. Per Inch	
(D) Size Limit:	105”	
(E) Gross Wt. Lt:	120 Lbs.	
(F) Location:	PHOENIX, AZ	

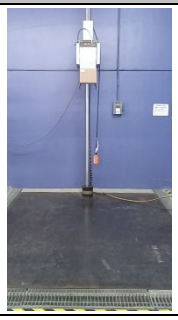
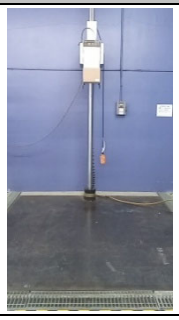
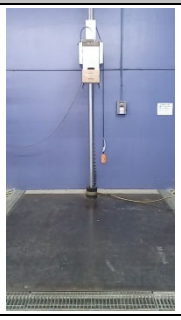
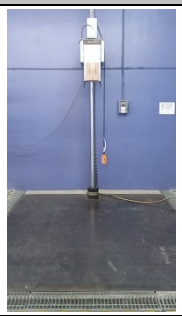
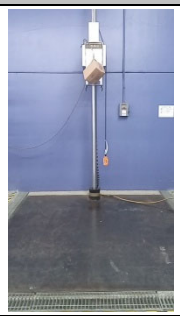
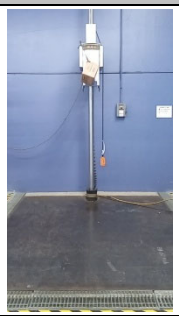
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SECTION III: TEST PROCEDURES AND RESULTS

DROP TESTS — Variable #1: 38-439 Polypropylene Closure

TEST INFORMATION		TEST CRITERIA
TEST CONTENTS:	Methanol/Water Solution (0.968 SG)	• For packaging containing liquid, each packaging does not leak. • There can be no damage to the outer packaging likely to adversely affect safety during transport. Inner receptacles, inner packagings or articles must remain completely within the outer packaging and there must be no leakage of the filling substance from the inner packaging. • Any discharge from a closure is slight and ceases immediately after impact with no further leakage. (§178.603)
SAMPLE PREPARATION:	Refer to Section II	
CONDITIONING:	-18°C (0°F) Freezer #W201	
CONTENTS TEMP.:	-18.6°C (-1.5°F)	
DROP HEIGHT:	1.9 Meters (75”) (Refer to Section IV)	
TEST EQUIPMENT:	L.A.B. Accu Drop 160	

DROP ORIENTATIONS AND TEST RESULTS

Sample #1: Flat on Bottom	Sample #2: Flat on Top	*Sample #3: Flat on Long Side
		
PASS: No leakage or damage.	**PASS:** No leakage or damage.	**PASS:** No leakage or damage.
***Sample #4: Flat on Short Side**	***Sample #5: Bottom Corner**	****Sample #1: Top Corner**
		
PASS: No leakage or damage.	**PASS:** No leakage. Slight deformation at impact corner.	**PASS:** No leakage. Slight deformation at impact corner.

*Side and corner drops were conducted to impact the manufacturer’s joint.

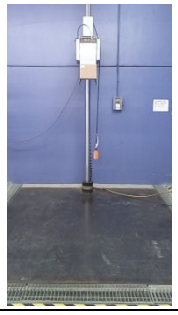
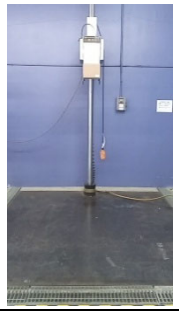
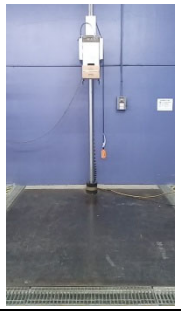
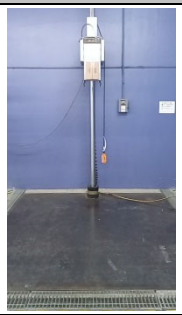
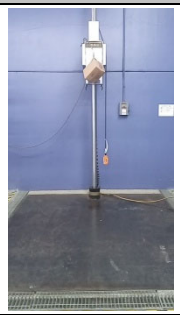
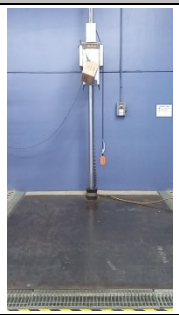
**Flat on bottom drop sample was also used for the top corner drop.

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DROP TESTS — Variable #2: 45mm HDPE TE Closure

TEST INFORMATION		TEST CRITERIA
TEST CONTENTS:	Methanol/Water Solution (0.968 SG)	• For packaging containing liquid, each packaging does not leak. • There can be no damage to the outer packaging likely to adversely affect safety during transport. Inner receptacles, inner packagings or articles must remain completely within the outer packaging and there must be no leakage of the filling substance from the inner packaging. • Any discharge from a closure is slight and ceases immediately after impact with no further leakage. (§178.603)
SAMPLE PREPARATION:	Refer to Section II	
CONDITIONING:	-18°C (0°F) Freezer #W201	
CONTENTS TEMP.:	-18.6°C (-1.5°F)	
DROP HEIGHT:	1.9 Meters (75”) (Refer to Section IV)	
TEST EQUIPMENT:	L.A.B. Accu Drop 160	

DROP ORIENTATIONS AND TEST RESULTS

Sample #6: Flat on Bottom	Sample #7: Flat on Top	*Sample #8: Flat on Long Side
		
PASS: No leakage or damage.	**PASS:** No leakage or damage.	**PASS:** No leakage or damage.
***Sample #9: Flat on Short Side**	***Sample #10: Bottom Corner**	****Sample #6: Top Corner**
		
PASS: No leakage or damage.	**PASS:** No leakage. Slight deformation at impact corner.	**PASS:** No leakage. Slight deformation at impact corner.

*Side and corner drops were conducted to impact the manufacturer’s joint.

**Flat on bottom drop sample was also used for the top corner drop.

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STACKING TEST

TEST INFORMATION		TEST CRITERIA
TEST CONTENTS:	Empty	• There can be no deterioration that could adversely affect transport safety or any distortion liable to reduce the package's strength, cause instability in stacks of packages, or cause damage to inner packagings that is likely to reduce safety in transport. (§178.606)
SAMPLE PREPARATION:	Refer to Section II	
CONDITIONING:	Ambient	
TEST LOAD APPLIED:	113.4 Kg (250.0 Lbs.) (Refer to Section IV)	
TEST DURATION:	24 Hours	
TEST EQUIPMENT:	Dead Load Weights	

STACKING TEST SET-UP & RESULTS



Sample #	Maximum Deflection After 24 Hours	Results
11	0"	**PASS**
12	0"	**PASS**
13	0"	**PASS**

Comments/Observations: Following the 24-hour stack test, there was no damage likely to affect the performance of the packaging.

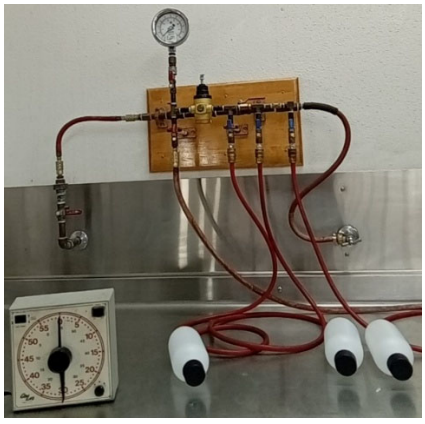
Stacking Stability: Not conducted; required only for guided load tests.

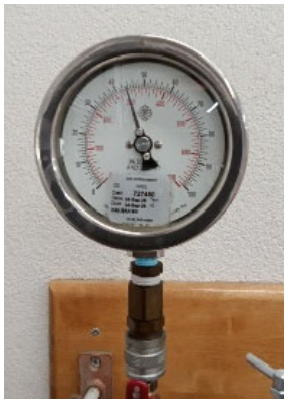
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PRESSURE DIFFERENTIAL TEST	Variable #1: 38-439 Polypropylene Closure

TEST INFORMATION		TEST CRITERIA
TEST CONTENTS:	Water	• Packaging for which retention of liquid is a basic function must be capable of withstanding the pressure requirements without leakage. (§173.27(c))
WATER TEMPERATURE:	22.6°C (75.7°F)	
FILL CAPACITY:	Maximum Capacity	
CLOSURE APPLICATION:	Refer to Section II	
CONDITIONING:	Ambient	
TEST PRESSURE:	300 kPa	
TEST DURATION:	30 Minutes	
AREA OF PRESSURIZATION:	Through the Bottom	
TEST EQUIPMENT:	Regulated Water Source #: 1 Pressure Gauge #: W602	

HYDROSTATIC PRESSURE TEST SET-UP AND RESULTS





Sample #	Results
1	PASS
2	PASS
3	PASS

Comments/Observations

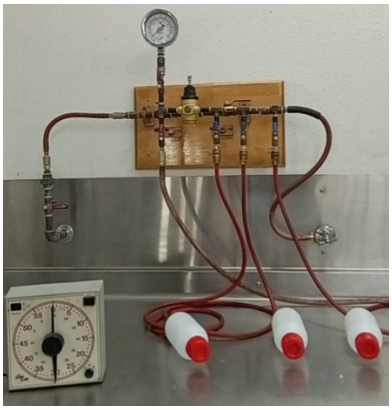
All three samples maintained the 300 kPa test pressure for 30 minutes without leakage.

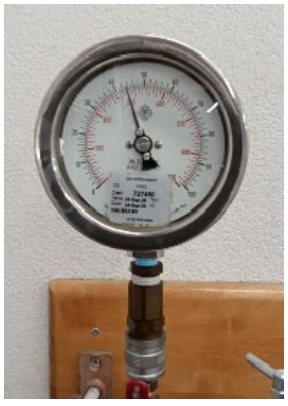
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PRESSURE DIFFERENTIAL TEST	Variable #2: 45mm HDPE TE Closure

TEST INFORMATION		TEST CRITERIA
TEST CONTENTS:	Water	• Packaging for which retention of liquid is a basic function must be capable of withstanding the pressure requirements without leakage. (§173.27(c))
WATER TEMPERATURE:	22.6°C (75.7°F)	
FILL CAPACITY:	Maximum Capacity	
CLOSURE APPLICATION:	Refer to Section II	
CONDITIONING:	Ambient	
TEST PRESSURE:	300 kPa	
TEST DURATION:	30 Minutes	
AREA OF PRESSURIZATION:	Through the Bottom	
TEST EQUIPMENT:	Regulated Water Source #: 1 Pressure Gauge #: W602	

HYDROSTATIC PRESSURE TEST SET-UP AND RESULTS





Sample #	Results
1	PASS
2	PASS
3	PASS

Comments/Observations

All three samples maintained the 300 kPa test pressure for 30 minutes without leakage.

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VIBRATION TEST	Variable #1: 38-439 Polypropylene Closure

TEST INFORMATION		TEST CRITERIA
TEST CONTENTS:	Water	• Immediately following the period of vibration, each package must be removed from the platform, turned on its side and observed for any evidence of leakage. • A packaging passes the vibration test if there is no rupture or leakage from any of the packages. • No test sample should show any deterioration which could adversely affect transportation safety or any distortion liable to reduce packaging strength. (§178.608)
SAMPLE PREPARATION:	Refer to Section II	
CONDITIONING:	Ambient	
TABLE DISPLACEMENT:	1”	
TEST FREQUENCY:	3.1 Hz	
TEST DURATION:	1 Hour	
TEST EQUIPMENT:	Vertical motion using L.A.B. Palletizer Vibration System	

VIBRATION TEST SET-UP AND RESULTS



Sample #	Results	Comments/Observations
14	**PASS**	No leakage or damage.
15	**PASS**	
16	**PASS**	

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VIBRATION TEST	Variable #2: 45mm HDPE TE Closure

TEST INFORMATION		TEST CRITERIA
TEST CONTENTS:	Water	• Immediately following the period of vibration, each package must be removed from the platform, turned on its side and observed for any evidence of leakage. • A packaging passes the vibration test if there is no rupture or leakage from any of the packages. • No test sample should show any deterioration which could adversely affect transportation safety or any distortion liable to reduce packaging strength. (§178.608)
SAMPLE PREPARATION:	Refer to Section II	
CONDITIONING:	Ambient	
TABLE DISPLACEMENT:	1”	
TEST FREQUENCY:	3.1 Hz	
TEST DURATION:	1 Hour	
TEST EQUIPMENT:	Vertical motion using L.A.B. Palletizer Vibration System	

VIBRATION TEST SET-UP AND RESULTS



Sample #	Results	Comments/Observations
17	**PASS**	No leakage or damage.
18	**PASS**	
19	**PASS**	

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COBB WATER ABSORPTION TEST

TEST INFORMATION		TEST CRITERIA
NUMBER OF SAMPLES:	5	• An increase in mass greater than 155 g/m² over the 30 minute duration represents an unacceptable level of water resistance. (§178.516)
SAMPLE SIZE:	5” x 5” (Minimum)	
CONDITIONING:	73°F / 50% RH Quality Room #W202	
WATER APPLIED:	100 mL / Sample	
TEST DURATION:	30 Minutes / Sample	
TEST EQUIPMENT:	UWE Analytical Balance Gurley Cobb Water Absorption Fixtures	

COBB WATER ABSORPTION TEST RESULTS		
REPRESENTATIVE SET-UP PHOTO	**Sample #**	**Water Absorbed**
	**1**	120.0 g/m²
	2	105.0 g/m²
	3	111.0 g/m²
	4	115.0 g/m²
	5	114.0 g/m²
	AVERAGE:	**113.0 g/m²**
	RESULT	**PASS**

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REGULATORY AND INDUSTRY STANDARD REFERENCES

REGULATORY REFERENCES					
TEST	**49 CFR①**	**UN②**	**IMDG③**	**ICAO④**	**IATA⑤**
	October 2025 Edition	**24th Edition**	**2024 Edition**	**2025-2026 Edition**	**67th Edition**
Drop:	178.603	6.1.5.3	6.1.5.3	6;4.3	6.3.3
Stacking:	178.606	6.1.5.6	6.1.5.6	6;4.6	6.3.6
Pressure:	173.27(c)	4.1.1.4.1	---	4;1.1.6	5.0.2.9
Vibration:	178.608	---	---	4;1.1.1 & 4;1.1.4	5.0.2.7
Cobb:	178.516(b)(1)	6.1.4.12.1	6.1.4.12.1	6;3.1.11.1	6.2.12.2

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)
④ Technical Instructions for the Safe Transport of Dangerous Good by Air (ICAO)
⑤ International Air Transport Association (IATA) Dangerous Goods Regulations

INDUSTRY STANDARD REFERENCES		
Drop:	ASTM⑥ D5276:	Standard Test Method for Drop Test of Loaded Containers by Free Fall
	ASTM⑥ D7790:	Standard Test Method for the Preparation of Plastic Packagings Containing Liquids for United Nations (UN) Drop Testing
	ISO⑦ 2248:	Packaging – Complete, Filled Transport Packages – Vertical Impact Test by Dropping
Stacking:	ASTM⑥ D8409:	Standard Guide for Conducting Stacking Tests on UN Packagings Using Guided or Unguided Loads
	ASTM⑥ D4577:	Standard Test Method for Compression Resistance of a Container Under Constant Load
	ISO⑦ 2234:	Packaging – Complete, Filled Transport Packages – Stacking Test using Static Load
Hydrostatic Pressure:	ASTM⑥ D7660:	Standard Guide for Conducting Internal Pressure Tests on United Nations (UN) Packagings
Vibration:	ASTM⑥ D999:	Standard Test Method for Vibration Testing of Shipping Containers
	ISO⑦ 2247:	Packaging – Complete, Filled Transport Packages – Vibration Test at Fixed Low Frequency
Cobb:	ISO⑦ 535:	Paper and Board – Determination of Water Absorption – Cobb Method

⑥ American Society for Testing and Materials (ASTM)
⑦ 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.

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SECTION IV: MATHEMATICAL CALCULATIONS

Variable #1: 38-439 Polypropylene Closure

INFORMATION USED FOR CALCULATIONS

Overall Packaging Tare Weight (PTW):	622.0	Grams	
Overflow Capacity (OFC):			Methanol/Water
Methanol/Water	595.0	Grams	SG: 0.967
Water	620.0	Grams	
Number of Inner Packagings (# IP):	6		
Packing Group	II		
Product Specific Gravity (PSG):	1.900		
Packing Group Multiplication Factor (MF):	1.00		
Overall Height of one Package (OH):	8.38	Inches	
Stack Test-# of Samples Tested Simultaneously:	0		

98% OF OVERFLOW

Overflow Capacity (OFC) x 98%

OFC	x	98%			
595.0	x	98%	=	583.1 Grams	Methanol/Water
620.0	x	98%	=	607.6 Grams	Water

PACKAGE TEST WEIGHTS

Overall Pkg Tare Weight (PTW) + (98% Overflow Capacity (OFC) x # of Inner Pkg (# IP)

PTW	+	(98% OFC	x	# IP)	
622.0	+	583.1	x	6	Methanol/Water
622.0	+	607.6	x	6	Water

Methanol/Water:	4.1	kg	9.0	lb
Water:	4.2	kg	9.2	lb

AUTHORIZED PACKAGE GROSS MASS CALCULATION (APGM)

Overall Pkg Tare Weight (PTW) + (Product SG (PSG) x 98% Overflow (OFC) x # of Inner Pkg (# IP))

PTW	+	(PSG	x	98% OFC	x	# IP)
622.0	+	1.9	x	607.6	x	6

7.5	kg	16.5	lb

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DROP HEIGHT

Calculation For Product Specific Gravities Exceeding 1.2
Product Specific Gravity (PSG) x Packing Group Multiplication Factor (MF)

PSG	x	MF		Packing Group: II	
				Required Drop Height	Actual Drop Height
1.9	x	1.00			
		1.90	Meter	74.8 Inches	75 Inches

STACKING TEST MINIMUM LOAD CALCULATIONS

Number of Packages in a 3m High Stack (118.2 / Overall Pkg Height (OH) -1)

118.2 / Overall Height of one Pkg (OH) - 1

(118.2	/	OH)	-1	=	# 3m HS
118.2	/	8.38	-1	=	13.2

Stacking Test Load Calculation (Individual Package)

Authorized Pkg Gross Mass (APGM) x # of Pkg in a 3m High Stack (# 3m HS)

APGM	x	# 3m HS
7.5	x	13.2

99.0 kg 218.3 lb

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Variable #2: 45mm HDPE TE Closure

INFORMATION USED FOR CALCULATIONS

Overall Packaging Tare Weight (PTW):	632.0	Grams	
Overflow Capacity (OFC):			Methanol/Water
Methanol/Water	607.0	Grams	SG: 0.967
Water	627.0	Grams	
Number of Inner Packagings (# IP):	6		
Packing Group	II		
Product Specific Gravity (PSG):	1.900		
Packing Group Multiplication Factor (MF):	1.00		
Overall Height of one Package (OH):	8.38	Inches	
Stack Test-# of Samples Tested Simultaneously:	0		

98% OF OVERFLOW

Overflow Capacity (OFC) x 98%

OFC	x	98%	=		
607.0	x	98%	=	594.9 Grams	Methanol/Water
627.0	x	98%	=	614.5 Grams	Water

PACKAGE TEST WEIGHTS

Overall Pkg Tare Weight (PTW) + (98% Overflow Capacity (OFC) x # of Inner Pkg (# IP)

PTW	+	(98% OFC	x	# IP)	
632.0	+	594.9	x	6	Methanol/Water
632.0	+	614.5	x	6	Water

Methanol/Water:	4.2	kg	9.2	lb
Water:	4.3	kg	9.4	lb

AUTHORIZED PACKAGE GROSS MASS CALCULATION (APGM)

Overall Pkg Tare Weight (PTW) + (Product SG (PSG) x 98% Overflow (OFC) x # of Inner Pkg (# IP))

PTW	+	(PSG	x	98% OFC	x	# IP)
632.0	+	1.9	x	614.5	x	6

7.6	kg	16.7	lb

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DROP HEIGHT

Calculation For Product Specific Gravities Exceeding 1.2
Product Specific Gravity (PSG) x Packing Group Multiplication Factor (MF)

PSG	x	MF		Packing Group: II	
				Required Drop Height	Actual Drop Height
1.9	x	1.00			
		1.90	Meter	74.8 Inches	75 Inches

STACKING TEST MINIMUM LOAD CALCULATIONS

Number of Packages in a 3m High Stack (118.2 / Overall Pkg Height (OH) -1)

118.2 / Overall Height of one Pkg (OH) - 1

(118.2	/	OH)	-1	=	# 3m HS
118.2	/	8.38	-1	=	13.2

Stacking Test Load Calculation (Individual Package)

Authorized Pkg Gross Mass (APGM) x # of Pkg in a 3m High Stack (# 3m HS)

APGM	x	# 3m HS
7.6	x	13.2

100.4 kg 221.3 lb

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