



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

WESTPAK, INC.
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MECHANICAL

Valid To: January 31, 2020

Certificate Number: 2870.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following types of Mechanical, Acoustical, and Vibration testing on various customer products and package systems:

<u>Test</u>	<u>Test Method(s)</u>
<u>Transport Simulation Performance Testing</u>	
Distribution Testing	ASTM D4169, D7386
Mechanical Handling	ASTM D6055
Non-simulation Integrity Performance Testing	ISTA 1A, 1B, 1C, 1D, 1E, 1F, 1G, 1H
Partial Simulation Performance Testing	ISTA 2A, 2B, 2C, 2D, 2E, 2F
General Simulation Performance Testing	ISTA 3A, 3B, 3E, 3F, 3H, 3K
Packaged Products for Sam's Club	ISTA 6 SAM'S CLUB, 6-FEDEX-A, 6-FEDEX-B
Packaged Products for Amazon	ISTA 6-Amazon.com-B, 6-Amazon.com Over Box (OB), 6-Amazon.com Ships in Own Container (SIOC)
Reusable Container Tests	ISTA 7B
Cold Chain Temperature Testing	ISTA 7D
Thermal Transport Packaging	ISTA 7E
<u>Vibration Testing</u>	
Sinusoidal Vibration	ASTM D3580; IEC 60068-2-6
Random Vibration	ASTM D4728
Loose Load Vibration	ASTM D999
Gross Leak of Threaded or Lug Style Closures	ASTM D5094
Horizontal Vibration Testing	ASTM D5112
Vibration Testing to Determine Abrasion Resistance	ASTM D5416
Sine Vibration per IEC 60068-2-6	ISO 60065 (Section 12.1.2)
Shipping Vibration	IEC 62093 (Clause 11.8)
Vibration	MIL-STD-810 514.6 (Procedures I & II only)
Mechanical Vibration of Crystalline Silicon Photovoltaic Modules in Shipping Environment	SEMI PV23-1011

<u>Test</u>	<u>Test Method(s)</u>
<u>Shock Testing</u>	
Shock Testing	ASTM D3332; IEC 60068-2-27, IEC 62093 (Clause 11.9); MIL-STD-810 516.6 (Procedures I-VI only)
Simulated Drop of Loaded Containers by Shock Machine	ASTM D5487
Instrumented Package Shock Testing for Determination of Package	ASTM D6537
Shock Testing of Foam in Place Materials	ASTM D4168
Vibration Testing of Bulk Containers Used for Liquid Dangerous Goods	ASTM D7387
Shock Testing per 60068-2-64	IEC 60601-1-11 (Section 10.1.3, Type C)
Shock Testing per 60068-2-27	IEC 60601-1-11 (Section 10.1.3, Type A)
<u>Drop Testing</u>	
Drop Testing	ASTM D5276
Concentrated Impact Testing	ASTM D6344
Mechanical Handling of Unitized Loads	ASTM D6179
Bridge Impact Testing	ASTM D5265
Incline Impact Testing	ASTM D880, D5277
Horizontal Impact Testing	ASTM D4003
Drop Test for Corrugated Containers	TAPPI T802
Impact Resistance of Fiberboard Shipping Containers	TAPPI T801
<u>Tensile Testing</u>	
Measuring Adhesion by Tape	ASTM D3359
Shear Adhesion of Pressure Tapes	ASTM D3654
Machine Direction Elastic Recovery and Stress Retention of Stretch Wrap Film	ASTM D5459
Peel Adhesion – Tape	ASTM D3330
Seal Strength Testing	ASTM F88
Tensile Properties of Plastic Sheeting	ASTM D882
Tensile Strength and Elongation – Tape	ASTM D3759/D3759M
Tensile Testing of Paperboard	TAPPI T494
<u>Compression Testing</u>	
Compression Testing	ASTM D642
Mechanical Load Test	IEC 61215 (Clause 10.16), IEC 61646 (Clause 10.16), IEC 61730-2 (Clause 34), IEC 62108 (Clause 10.13)
Mechanical Loading Test	UL 1703 (Clause 41); ULC/ORD C1703 (Clause 5.23)
Compression Resistance of Package Under Static Load	ASTM D4577
Flat Crush Test (FCT) Using Flexible Beam	TAPPI T808
Ring Crush Test of Paperboard	TAPPI T818
Pin Adhesion Test	TAPPI T821
Compression Test of Containers	TAPPI T804
Flat Crush Test (FCT)	TAPPI T825
Edge Crush Test (ECT) Using Neckdown Sample	TAPPI T838

<u>Test</u>	<u>Test Method(s)</u>
<u>Compression Testing (Cont.)</u>	
Creep Properties of Cushion	ASTM D2221
Slow Rate Penetration of Flexible Barrier Films	ASTM F1306
<u>Environmental Conditioning</u>	
Environmental Conditioning	ASTM D4332
High Temperature	MIL-STD-810 501.5
Low Temperature	MIL-STD-810 502.5
Temperature Shock	MIL-STD-810 503.5
Freeze/Thaw Testing	MIL-STD-810 524
Humidity Testing	MIL-STD-810 507.5
Altitude Testing	ASTM D6653
Low Pressure (Altitude)	MIL-STD-810 500.5
Accelerated Aging	ASTM F1980
Thermal Cycling Test	IEC 60950 (Clause 2.10.9), IEC 61215 (Clause 10.11), IEC 61646 (Clause 10.11), IEC 61730-2 (Clause 51), IEC 62093 (Clause 11.11), IEC 62108 (Clause 10.6); UL 1703 (Clause 35); ULC/ORD C1703 (Clause 5.17)
Humidity Freeze Test	IEC 61215 (Clause 10.12), IEC 61646 (Clause 10.12), IEC 61730-2 (Clause 52), IEC 62093 (Clause 11.12), IEC 62108 (Clause 10.8); UL 1703 (Clause 36); ULC/ORD C1703 (Clause 5.18)
Damp Heat Test	IEC 61215 (Clause 10.13), IEC 61646 (Clause 10.13), IEC 61730-2 (Clause 53), IEC 62093 (Clause 11.13), IEC 62093 (Clause 11.15), IEC 62108 (Clause 10.7)
Salt Fog Testing	ASTM B117; MIL-STD-202 101E, MIL-STD-810 509.5
Scribing	ASTM D1654
Pre-Thermal Cycle Test	IEC 62108 (Clause 10.8.3)
Conditioning of Paperboard	TAPPI T402
Effect of Dry Heat on Properties of Paperboard	TAPPI T453
Effect of Moist Heat on Properties of Paperboard	TAPPI T544
Basis Weight of Fiber Glass Mats	TAPPI T1011
Storage Testing of Aerosol Products	ASTM D3090
Accelerated Aging of Pressure Sensitive Tapes	ASTM D3611
Climatic Stressing of Parcels for Delivery	ASTM F2825
Thermal Insulation Performance of Packages	ASTM D3103
Leak Testing of Containers Using Vacuum Method	ASTM D4991
Environmental Operating Conditions	IEC 60601-1-11 (Clause 4.2.2)

<u>Test</u>	<u>Test Method(s)</u>
<u>Mullen Burst Testing</u>	
Burst Strength of Paper	TAPPI T403
Burst Strength of Paperboard and Linerboard	TAPPI T807
Burst Strength of Corrugated and Solid Fiberboard	TAPPI T810
<u>Medical Packaging Testing</u>	
Bubble Emission Testing	ASTM F2096
Burst Testing	ASTM F1140
Dye Penetration Testing	ASTM F1929, F3039
Determination of Leaks in Packages by Bubble Emission	ASTM D3078
Burst Testing Using Restraining Plates	ASTM F2054
<u>Manual Test Input</u>	
Visual Inspection of Seals for Flexible Packaging	ASTM F1886
<u>Mechanical Tests (Non-Solar)</u>	
Ink Rub Test of Container Board	TAPPI T830
Abrasion Resistance (Scuff Testing)	ASTM D5264
Water Vapor Resistance of Tape and Adhesives	ASTM D5570
Water Vapor Transmission of Heat Sealed Dry Packages	
Water Vapor Transmission of Heat Sealed Dry Packages	ASTM D3079
<u>Mechanical Photovoltaic Tests</u>	
Visual Inspection	IEC 61215 (Clause 10.1), IEC 61646 (Clause 10.1), IEC 61730-2 (Clause 01), IEC 62093 (Clause 11.1), IEC 62108 (Clause 10.1)
Impact Test	UL 1703 (Clause 30); ULC/ORD C1703 (Clause 5.13)
Hail Impact Test	IEC 61215 (Clause 10.17), IEC 61646 (Clause 10.17), IEC 62108 (Clause 10.9)
<u>Ultra Violet (UV) Chamber Tests</u>	
UV Exposure (QUV)	ASTM G154



Accredited Laboratory

A2LA has accredited

WESTPAK, INC.

San Jose, CA

for technical competence in the field of

Mechanical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



Presented this 15th day of May 2018.

A handwritten signature in black ink, written over a horizontal line.

President and CEO
For the Accreditation Council
Certificate Number 2870.01
Valid to January 31, 2020

For the tests to which this accreditation applies, please refer to the laboratory's Mechanical Scope of Accreditation.