



Test(s):

Test Method(s):

Chemistry

FTIR (Infrared Spectrometry)	ASTM E1252; SOP CHEM01
XRF	CHEM-22
Gravimetric Cleanliness Analysis	ASTM F2459
ICP (Including Leadn Paint by ICP)	SOP CHEM14, CHEM-18; 16 CFR 1303; CPSGCH-E100309.1
Total Lead in Metal and Non-Metal Children's Products	CPSGCH-E100108.3, CPSGCH-E100208.3
OES-Optical Emission Spectroscopy (Aluminum, Cast Iron, Copper Base, Iron Base (Carbon and Low Alloy,)Stainless Steel, Titanium Base)	ASTM E415, E1086; SOP CHEM10
Combustion (LECO) (Carbon and Sulfur)	ASTM E1019; SOP CHEM7

Environmental Simulation

Humidity	MIL -STD-202 (Method 103B),MIL -STD-810 (Method 507)
Fluorescent UVCondensation, Lightand WaterExposure (QUV)	ASTM G154
Salt Spray (Fog)	ASTM B117; MIL-STD-202 (Method 101E), MIL -STD-810 (Method 509)
Modified Salt Spray	ASTM G85,Annex5
Shock, Mechanical	IEC 600682-27; MIL-STD-810 (Method 516)
Shock, Thermal	MIL -STD-202(Method 107G)
Temperature/Humidity/Pressure	IEC 606011-11
XenonArc Light Exposure, With and Without Water	ASTM D2565, G155
Vibration	IEC 600682-64; MIL -STD-810 (Method 514)





Test(s):

Test Method(s):

Metals and Metal Products, Fasteners (cont'd):

Bend Test (General)	ASTM A615/A615M, E290
Coating Weight	ASTM A90/A90M
Full Sized Eye Bolts: Bend Test, Breaking Strength and Proof Load	ASTM F541
Impact, Notched Bar (Room Temperature to 21 °F)	ASTM A370, A489, A673/A673M, E23; AWS D1.5/D1.5M; DTW 766; ISO 148-
Mechanical and Material Requirements for Externally Threaded Fastener	SAE J429
Mechanical and Material Requirements for Metric Externally Threaded Steel Fasteners	SAE J1199
Proof Load of Full Sized: Externally Threaded Fasteners	AASHTO T244; ASTM A370, F606/F606M; ISO 8984; JIS B1051
Tension Test Ambient Temperature	AASHTO M31; ASTM A370, A615/A615M, A706/A706M, B557, E8/E8M, F606/F606M; ISO 8984, 3506; JIS B1051; NASM 1312-
Total Extension at Fracture of Externally Threaded Fasteners	ASTM F606/606M; ISO 898-1, 3506
Wedge Tensile of Full Sized Threaded Fasteners	AASHTO T244; ASTM A370, F606/F606M; ISO 8984; JIS B1051; NASM 1312; SAE J82

Nails and Fasteners

Nails, Fasteners, Spikes and Staples	ASTM D4442, F1575, F1667; ICC ES AC116 ((Test Methods Referenced in Sections 3.0 (Sections 3.2.10)); AC118 (Test Methods Referenced in Section 4.0); AC233; AC257 (Test Methods Referenced in Sections 3.0 and 4.0);
Power Actuated Fasteners	ASTM E1190; ICC ES AC708 (Sections 3.0 and 4.0)
Mechanical Fasteners in Wood	ASTM D1761

Package Testing

Standard Practice for Performance Testing of Shipping Containers and Systems	ASTM D4169
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Test(s):

Test Method(s):

Physical/Structural

Basic Hardboard/Hardboard Core	ANSI A135.4, A135.6, A135.7
Mullen Burst Test	ASTM D3786/3786M
External Loading Characteristics of Plastic Pipe by Parallel Plate Loading	ASTM D2412
Water Absorption of Core Materials for Sandwich Constructions	ASTM C272/C272M
Wood-Based Fiber Materials and Particle Panel Materials	ASTM D1037(Except Abrasion Resistance)

Thermal

Thermal Transmittance and Condensation Resistance	AAMA 1503
Measuring Compressive Properties of Thermal Insulations	ASTM C165
Breaking Load and Flexural Prop. of Block Type Thermal Insulation	ASTM C203
Cellulose Fiber Insulating Board	ASTM C209(Except Flame Spread Index)
Dimensions and Density of Preformed Block Board Type Insulation	ASTM C303
Thermal Transmission Properties	ASTM C518
Rigid, Cellular Polystyrene Thermal Insulation	ASTM C578 (Except Oxygen Index)
Thermal Performance by Hot Box Apparatus	ASTM C1363
Compression, Density, Thermal and Humid Aging of Rigid Cellular Plastics	ASTM D1621, D1622, D2126

BAIID Testing

Breath Alcohol Ignition Interlock Devices	AS-3547-1997 (Australia); CENELEC (Europe); EN 50436:2014 (except clauses 6.7, 6.8 and 6.9); EN 504362:2014+A1:2015, 60062-78 (IEC 600682-78); CSTT-HVC-TR-114/CSTT-HVC-TR-150 (Except Test 3.6) (Canada); CSA Z627 (Except Clause 8.7); EC 60529; 60062-30;
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Test(s):

Breath Alcohol Ignition Interlock Devices  
(cont'd):

Test Method(s):

ISO 167501, 167502:2010, 2012, 16750  
3:2007



# Accredited Laboratory

A2LA has accredited

## ELEMENT ST. PAUL

for technical competence in the field of

## Mechanical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025: 2017



th day of December 2022.

Mr. Trace Mc Inturff, Vice President , Accreditation Services  
For the Accreditation Council  
Certificate Number 0098 .03  
Valid to December 31 , 2024