VMS

OUTSHINE

Environmental Testing Lab

Visual Marking Systems Testing Lab

As a printing provider to large industrial companies, the products we manufacture are used throughout the world and in nearly every environment imaginable. As a result, our customers often require extensive product testing to ensure a high level of quality and complete compliance with their industry standards. As a service to our customers, we offer a range of quality and environmental testing capabilities in our testing lab at our facility.

Visual Marking System's In House Testing Capabilities

Dimensional Stability – tests how well a label retains the proper shape and dimension after being exposed to extreme conditions such as hot or cold

Elevated Temperature Exposure - tests how well the label retains the proper dimension, color, appearance and adhesion when exposed to temperatures of up to 410 Fahrenheit

Thermal Shock - tests how well the label retains the proper dimension, color, appearance and adhesion when exposed to extreme cold and hot temperatures. VMS's thermal shock testing is conducted by rotating a product between extreme hot and cold temperatures back to back several times.

Extreme Cold Testing - tests how well the label retains the proper dimension, color, appearance and adhesion when exposed to temperatures down to -40 Fahrenheit

Humidity Testing - tests how well a product's adhesive properties perform in a high humidity environment

Ultraviolet Weathering/Accelerated QUV Testing - tests how well the label retains the proper dimension, color, appearance and adhesion when exposed to extreme ultra violet light for extended periods of time

Shelf Life - combines a series of test results to determine the optimum time a product will remain in a useable condition while stored in inventory in a controlled environment

Additional Partnership Testing Capabilities

VMS also has longstanding partnerships with testing facilities throughout the United States to conduct chemical resistance, abrasion and other advanced tests to meet the requirements of our customers.

Chemical Resistance - tests how well a product performs when exposed to chemicals such as oil and gasoline

Abrasion Testing - tests how well a product performs when repeatedly exposed to a rough, abrasive surface

Salt Spray Testing - tests of how a product maintains its appearance and adhesive capabilities in environments with high concentrations of salt

Chemical Testing - tests how well a product maintains the proper shape, proper dimension, adhesion and appearance when exposed to chemicals including oil and gasoline.

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Visual Marking System's Product Testing Comparison Chart

Test Name	Shape Retention	Dimension Retention	Adhesion Endurance	Appearance Retention	Exposure to Extreme Temperatures
Dimensional Stability	X	X			X
Elevated Temperature Exposure	X	X	X	X	X
Thermal Shock	X	X	X	X	X
Extreme Cold Testing	X	X	X	X	X
Humidity Testing			X		
Ultraviolet Weather/Accelerated QUV Testing	X	X		X	
Shelf Life	X	X	X	X	
Abrasion			X	X	
Salt Spray			X	X	
Chemical Resistance	X	X	X	X	

Test Name	What Products Should Be Tested?
Dimensional Stability	Products that cover a very specific sized space for either functional or decorative purposes.
Elevated Temperature Exposure	Products that are exposed to extremely hot environments such as engines and deserts.
Thermal Shock	Products that are exposed to both extremely hot and cold environments on a regular basis.
Extreme Cold Testing	Products that are exposed to extremely cold temperatures for extended periods of time.
Humidity Testing	Products that will be exposed to a high moisture environment either inside a facility or outside in a location where large amounts of moisture are present.
Ultraviolet Weather/Accelerated QUV Testing	Since accelerated QUV testing provides a quick method to determining how a product will age over a period of time when exposed to ultraviolet light (sunlight), this test is commonly used for product that will spend most of the time outside, exposed to the sun.
Shelf Life	All products stored in inventory for extended periods of time.
Abrasion	Products that will be exposed to a rough, abrasive surface.
Salt Spray	Products that will be exposed to an environment with a heavy concentration of salt or similar compounds
Chemical Resistance	Products that will be exposed to chemicals including oil and gasoline. This test is of particular importance for products designed for application near openings for liquids on equipment such as engines.