Chemical Testing—Guardian Extreme™ Signs and Tags

Master Lock has tested the Guardian Extreme Signs and Tags using the industry standard Liquid Penetrant Inspection process.

The Liquid Penetrant Inspection test is used to test a variety of materials in a manner that replicates common field situations. Liquid Penetrant Inspection is capable of revealing surface discontinuities (variations in material composition) in a variety of environmental exposures making it an effective tool for determining the suitability of a material for use in environments where exposure to chemicals may occur.

TEST PROCEDURE:
Tags & Signs shall not exhibit any loss of gloss, color, or legibility when exposed to five drops of the chemical agents/fluids listed below. Full exposure time of the labels to the fluids shall be 1 minute. Then the exposed surface shall be rubbed in a back and forth motion with a cloth.

PRODUCT EVALUATION:
The exposed product is then evaluated for visual and structural integrity. The graphics must retain visual acuity and the tag or sign must not delaminate or become structurally unsound.

TEST RESULTS:
Master Lock Guardian Extreme Tags & Signs with graphics permanently embedded in solid injection molded Polypropylene using our patent pending process have successfully passed the Liquid Penetrant Inspection test for the following chemical agents:

Acetone
Aliphatic Solvents
Alkaline Cleaners
Ammonia
Anionic Surfactants
2-Butoxyethanol
Benzene
Benzyl Ammonium Chlorides
Butanol
Chlorinated Alkaline Cleaners
Chlorine Bleach
Cryogenic Liquids
Dimethyl Benzyl Ammonium Cloride
Ethylene Oxide
Formaldehyde
Glycol
Glycol Ether DPM
Glycol Ether Solvents
Hydrochloric Acid < 10%
Isopropanol
Lead Tetraacetate
Ketone
Methanol
Methyl Polysilicone
Mineral Oil
Naphtha
Phosphoric Acid < 10%
Potassium Hydroxide
Potassium Hypochlorite
Propylene Oxide
Quaternary Ammonium Chlorides
Sodium Hydroxides
Sodium Hypochorite
Sodium Mettasilicate
Synthetic Wetting Agents
Tetraacetate
Trisodium Phospates
Toluene
Vinegar
Xylene
Wash solvents