

Ceramic Tag Durability

CHARACTERISTIC	TEST CONDITION	EFFECT
Exterior Exposure	Simulated outdoor exposure testing indicates predicted outdoor service life in excess of 100 years.	No effect
Surface Hardness	5.0 on Moh's scale	-----
Abrasion Test	500 cycles with CS-17 calibrase wheels with 100g load	No effect
Tensile Strength	Where mechanical stress places ceramic coating in tension a pattern of fine cracks, perpendicular to tensile stress will form. Steel core has strength of 44 KSI tensile. Where tag may be prone to bend, tensions capable of causing cracking of ceramic can occur. Use of heavier core can eliminate potential for bending	-----
Impact Test	70g steel ball dropped from 1 meter, impacting tag surface perpendicular to descent of ball.	No effect
Temperature Resistance	1,200 degrees F for 30 minutes	No effect
Salt Spray	5% at 95 degrees F for 700 hr.	No corrosion
Chemical Resistance:	Resistant to most acids except hydrofluoric or concentrated phosphorics. Resistant to most caustics except at elevated temperatures	-----
Hydrochloric Acid	72 hr. immersion	No effect
Nitric Acid	72 hr. immersion	No effect
Sulfuric Acid	72 hr. immersion	No effect
Sodium Hydroxide	50% solution, 72 hr. immersion	No effect
MIL-L-5161C Jet Fuel	1 hr. immersion	No effect
JP-4 fuel	72 hr. immersion	No effect
Kerosene	12 hr. immersion	No effect
Hydraulic Fluid	24 hr. immersion at boiling point	No effect
Methyl Ethyl Ketone	24 hr. immersion	No effect
Ethyl Acetate	24 hr. immersion	No effect
Ferric Chloride	10% solution, 16 hr. immersion	No effect
MIL-P-21563 soap solution	16 hr. immersion	No effect
MIL-C-25179 AIN in heptane	25% solution, 1 min. immersion	No effect

Technical data is provided for comparison purposes only. This data has been compiled from sources we believe to be accurate but cannot guarantee. Variable combinations of chemicals, temperature, pressures and chemical concentrations may produce varied results. Customer testing is recommended to determine actual suitability in any specific environment.

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