



## Test methods and standards (Lab-Scope)

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**MaterialScan** gives access to a comprehensive service of salt spray corrosion testing and surface analysis, thanks to the partnership with **Proton Technology**, including:

- Corrosion and surface analysis tests according to over 200 standards,
- Process and product verification agreements,
- We can act as your own internal laboratory,
- We can recommend the right standard, but also customize test methods based on your needs.

Test methods and standards	Specification
ASTM B117	Corrosion Test
ASTM D1654	Requirement Standard
ASTM D3359	Cross Cut Adhesion Test
ASTM D3363	Film Hardness Pencil Test
ASTM D4060-14	Abrasion Scratch Resistance Test
ASTM D714	Requirement Standard
ASTM E1347	Colorimetric Determination
ASTM G154	UV Exposure Test (Exposure of Non-metallic Materials)
ASTM G53 / KEUR 00824-101	UV-Condensation Resistance Test
BMW AA-0055	Chemical Resistance Test
BMW AA-0079	Stone Chip Resistance Integrity and Adhesion Test
BMW AA-0136	Steam Jet Integrity and Adhesion Test
BMW AA-0180	Cross Cut Adhesion Test
BMW AA-0213	Constant Humidity Test
BMW AA-0224	Cyclic Corrosion Test
BMW AA-0254	Coating Thickness Test
BMW GS 90010	Requirement Standard
BMW GS 90011	Requirement Standard



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The accreditation ISO/IEC 17025 is valid for the methods listed in "Scope of accreditation", at [www.protontechnology.it](http://www.protontechnology.it)

Test methods and standards	Specification
BMW GS 94015	Requirements and Tests Topcoats and painted parts for motorcycles
CSN 73 2577	Pull-Off Adhesion Test
DBL 7381.10	Cyclic Corrosion Test
DBL 9201:2017	Aluminium Alkali Resistance Test
DIN 50 021 ASS	Corrosion Test
DIN 50 021 SS	Corrosion Test
DIN 50018	Corrosion Test
EN 13523-8	Neutral Salt Spray (NSS) Corrosion Test
EN 1542	Pull-Off Adhesion Test
EN 927-6	UV Exposure Test
EN ISO 8442-2 Annex C	Dip Corrosion Test
Ford CETP 00.00-L-467	Cyclic Corrosion Test
Ford WX 100	Requirement Standard
Geely Q/JL J130006-2019	Cyclic Corrosion Test
GM GMW3286	Corrosion Test
GM GMW4700	Requirement Standard
HIAB C 226.112	Cyclic Corrosion Test
Hyundai / KIA MS600-35E CC	Corrosion Test
Hyundai / KIA MS600-35E SST	Corrosion Test
Hyundai / KIA MS652-15	Requirement Standard
IEC 60068-2-1	Corrosion Test
IEC 60068-2-2	Dry Heat Environmental Testing
IEC 60068-2-11	Neutral Salt Spray (NSS) Corrosion Test
IEC 60068-2-14	Corrosion Test
IEC 60068-2-30	Damp Heat Cyclic Environmental Testing
IEC 60068-2-52	Corrosion Test
IEC 60068-2-78	Corrosion Test
IKEA IOS-MAT-0002	IKEA Test Methods
IKEA IOS-MAT-0066	Requirement Standard



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Test methods and standards	Specification
ISO 10289	Evaluation of Corrosion Resistance
ISO 11357-2	Glass Transition temp C, DSC Analysis
ISO 11997-1, cycle B	Cyclic Corrosion Test
ISO 12944-6	Requirement Standard
ISO 12944-9	Offshore Corrosion Test, Cycle B
ISO 1463:2004	Microscopical Method - Coating Thickness Measurement
ISO 1518-1	Scratch Resistance Test
ISO 15184	Film Hardness Pencil Test
ISO 1519	Bend Adhesion Test
ISO 1520	Extensibility Adhesion Test
ISO 1522	Hardness Pendulum Damping Test
ISO 16276-2	Cross Cut Adhesion Test
ISO 16474-1	Xenon-arc lamps UV Exposure Test (paints)
ISO 16474-2	Xenon-arc lamps Resistance to Weathering
ISO 16474-3	UV Condensation Test
ISO 16474-3	UV Condensation Test
ISO 1670	Requirement Standard
ISO 16701	Accelerated Corrosion Test
ISO 16750-4	Mixed Gases Corrosion Test
ISO 19598	Requirement Standard
ISO 20567-1	Stone Chip Resistance Integrity and Adhesion Test
ISO 2081	Requirement Standard
ISO 21194	Adhesion to glazing adhesive
ISO 2360	Coating Thickness Test
ISO 2409	Cross Cut Adhesion Test
ISO 2808	Coating Thickness Test
ISO 2810	Natural weathering
ISO 2812-1	Chemical Resistance Test
ISO 2812-2	Water Immersion
ISO 2812-3	Chemical Resistance Test



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<b>Test methods and standards</b>	<b>Specification</b>
ISO 2813	Degree of gloss
ISO 2819	Metallic Coatings Adhesion Test
ISO 3231	Corrosion Test
ISO 3248	Thermal Aging
ISO 3270	Laboratory Climate Conditioning
ISO 3668	Evaluation Light Cabinet
ISO 3892	Phosphate Coating Mass Determination
ISO 4288	Surface Roughness Test
ISO 4540	Evaluation of Corrosion Resistance
ISO 4623-2	Filiform Corrosion Test
ISO 4624	Pull-Off Adhesion Test
ISO 4628	Appearance of coatings
ISO 4628-1	General introduction and designation system
ISO 4628-10	Assessment of degree of filiform corrosion
ISO 4628-2	Assessment of degree of blistering
ISO 4628-3	Assessment of degree of rusting
ISO 4628-4	Assessment of degree of cracking
ISO 4628-5	Assessment of degree of flaking
ISO 4628-6	Assessment of degree of chalking by tape method
ISO 4628-7	Assessment of degree of chalking by velvet method
ISO 4628-8	Assessment of degree of delamination and corrosion around a scribe
ISO 4892	Exposure to UV-light (plastics)
ISO 4892-1	Xenon-arc lamps UV Exposure Test (plastics)
ISO 4892-2	Exposure to lab Light Xenon-arc lamps
ISO 4892-3	UV Exposure Test (plastics)
ISO 5470-1	Abrasion Scratch Resistance Test
ISO 6270-1	Condensation Humidity Test
ISO 6270-2 AHT	Cyclic Corrosion Test
ISO 6270-2 AT	Cyclic Corrosion Test



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<b>Test methods and standards</b>	<b>Specification</b>
ISO 6270-2 CH	Continuous Condensation Test
ISO 6272-1	Impact Resistance Test
ISO 6988	Corrosion Test
ISO 7784-1	Abrasion Scratch Resistance Test
ISO 7784-2	Abrasion Scratch Resistance Test
ISO 8993	Rating sytem for the evaluation of pitting corrosion
ISO 9227 AASS	Acetic Acid Salt Spray Corrosion Test
ISO 9227 NSS	Neutral Salt Spray Corrosion Test
Jaguar Cars & Land Rover STJLR.51.5254	Requirement Standard
Jaguar Cars & Land Rover TPJLR.52.061	Paint Adhesion Test Methods
Jaguar Cars & Land Rover TPJLR.52.154	Fuel Resistance Chemical Test
Jaguar Cars & Land Rover TPJLR.52.155	Fluid Spotting Resistance
Jaguar Cars & Land Rover TPJLR.52.252	Neutral Salt Spray (NSS) Corrosion Test
Jaguar Cars & Land Rover TPJLR.52.265	Cyclic Corrosion Test
Jaguar Cars & Land Rover TPJLR.52.351	Corrosion Test
Jaguar Cars & Land Rover TPJLR.52.561	Water-Jet Resistance Adhesion Test
Jaguar Cars & Land Rover TPJLR.52.599	Stone Chip Resistance Test
Jaguar Cars & Land Rover TPJLR.52.601	Determination of Crosslinking of Electro-Paint
KEUR 00824-840	Humidity Test
KEUR 00824-841	Neutral Salt Spray (NSS) Corrosion Test
KEUR 00824-843	Water Immersion Test
KEUR 00824-844	Natural Weathering Test



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<b>Test methods and standards</b>	<b>Specification</b>
KEUR 00824-850	SCAB Corrosion Test
MAN 277	Scratch Adhesion Test
MAN 352	Chemical Resistance Test
MAN 352	Media Resistance Chemical Test
Porsche PTL 7524	Requirement Standard
PSA Peugeot Citroën	Requirement Standard
Renault D17 2028	Cyclic Corrosion Test
Renault D17 1058	Corrosion Test
SAE J2334	Cyclic Corrosion Test
SAE J400	Stone Chip Resistance Integrity and Adhesion Test
Scania STD 4121	Organic surface treatment - Exterior plastics - Requirements
Scania STD2239	Knife Adhesion Test
Scania STD234	Stone Chip Resistance Integrity and Adhesion Test
Scania STD4113	Requirement Standard Painted Material (Organic)
Scania STD4165	Requirement Standard Inorganic Coatings
Scania STD4174	Hardness Test
Scania STD4234	Water-Jet Resistance Adhesion Test
Scania STD4291	Phosphate Coatings Microstructural Characterisation
Scania STD4319	Cyclic Corrosion Test
Scania STD4445	Cyclic Corrosion Test
Scania STD4446	Requirement Standard
Scania STD4561	Stone Chip Resistance Test
SS-EN IEC 61439-1	Low-voltage switchgear and controlgear assemblies
STJLR.51.5254 TYPE B	Performance Requirements of Painted Underbody & Service Parts
Surface Engineering Service	Cross Section Analysis of Coatings and Substrates
Surface Engineering Service	Defect Analysis
Surface Engineering Service	Failure Mode Analysis
Surface Engineering Service	Materials and Surface



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<b>Test methods and standards</b>	<b>Specification</b>
Surface Engineering Service	Microstructure Analysis
Surface Engineering Service	SEM / EDS Chemical Analysis
Thule TI0141	Requirement Standard
Thule TI0142	Requirement Standard
Thule TI0143	Requirement Standard
Thule TI0144	Requirement Standard
Thule TI0145	Requirement Standard
VDA 233-102	Cyclic Corrosion Test
VDA 621-415	Cyclic Corrosion Test
Volkswagen 13750	Surface Protection for Metal Parts
Volkswagen PV 1200	Cyclic Corrosion Test
Volkswagen PV 1209	Cyclic Corrosion Test
Volkswagen PV 1210	Cyclic Corrosion Test
Volkswagen PV 2005, method A	Cyclic Corrosion Test
Volkswagen TL 226 3.13.2	Drop Heat Chemical Resistance Test
Volkswagen TL 244	Requirement Standard
Volkswagen TL 256	Requirement Standard
Volkswagen TL 260	Requirement Standard
Volkswagen TL 266 (Heat aging)	Heat Aging Test
Volkswagen TL 266 (various tests)	Requirement Standard
Volvo STD 1025,8	Determination of Film Thickness
Volvo STD 1027,1372	Accelerated Exposure Outdoor SCAB Test
Volvo STD 121-0001	Requirement Standard
Volvo STD 121-0002	Requirement Standard
Volvo STD 121-0003	Requirement Standard
Volvo STD 121-0004	Requirement Standard
Volvo STD 121-0005	Requirement Standard
Volvo STD 121-0006	Requirement Standard
Volvo STD 121-0008	Requirement Standard
Volvo STD 121-0009	Requirement Standard



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<b>Test methods and standards</b>	<b>Specification</b>
Volvo STD 121-0012	Requirement Standard
Volvo STD 121-0013	Requirement Standard
Volvo STD 121-0014	Requirement Standard
Volvo STD 121-0015	Requirement Standard
Volvo STD 121-0016	Requirement Standard
Volvo STD 1266,1	Moisture Ageing Test
Volvo STD 420-0001	Evaluation Degree Blistering of Paints
Volvo STD 420-0004	Test Liquids
Volvo STD 423-0009	Scrape Adhesion Test
Volvo STD 423-0011	Chemical Resistance Test
Volvo STD 423-0012	Cross Cut Adhesion Test
Volvo STD 423-0014	Cyclic Corrosion Test
Volvo STD 423-0018	Cyclic Tropical Humidity Test
Volvo STD 423-0019	Car Wash Scratch Resistance Test
Volvo STD 423-0024	Extensibility Adhesion Test
Volvo STD 423-0030	Erichsen Pen Scratch Resistance Test
Volvo STD 423-0037	Colour fastness to Rubbing
Volvo STD 423-0044	Pull-Off Adhesion Test
Volvo STD 423-0069	Cyclic Corrosion Test
Volvo STD 5711,101	Outdoor Exposure Orientation
Volvo STD 5711,102 AASS	Acetic Acid Salt Spray Corrosion Test
Volvo STD 5711,102 NSS	NSS Neutral Salt Spray Corrosion Test
Volvo STD 5711,202	Tin Porosity Testing
Volvo STD 5712,101	Quenching Adhesion Test
Volvo STD 5712,104	Burnishing Adhesion Test
Volvo STD 5713,102	Determination of Free Hexavalent Chromium
Volvo STD 5732,104	Requirement Standard
Volvo STD 5732,105	Requirement Standard
Volvo STD 5742,104	Phosphate Coatings Microstructural Characterisation
Volvo STD 5742,1049	Phosphate Coatings Microstructural Characterisation



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Test methods and standards	Specification
Volvo VCS 1017,123	Copper Alloys Stress Corrosion Test
Volvo VCS 1021,29	Corrosion from Scribe line
Volvo VCS 1026,8177	Chemical Resistance Test
Volvo VCS 1026,81779	Chemical Resistance Test
Volvo VCS 1027,0519	Evaluation Degree Blistering
Volvo VCS 1027,14	Cyclic Corrosion Test
Volvo VCS 1027,1449	Cyclic Corrosion Test
Volvo VCS 1027,149	Cyclic Corrosion Test
Volvo VCS 1027,2729	Odour of Trim Materials in Vehicles
Volvo VCS 1027,33759	Cyclic Corrosion Test
Volvo VCS 1027,6132	Test Liquids
Volvo VCS 1029,54729	Cross Cut Adhesion Test
Volvo VCS 1029,54739	Scrape Adhesion Test
Volvo VCS 1029,8202	Colour Fastness to Rubbing
Volvo VCS 1281,219	Requirement Standard
Volvo VCS 5712,101	Quenching Adhesion Test
Volvo VCS 5715,1029	General Corrosion Evaluation
Volvo VCS 5732,1059	Requirement Standard
Volvo VCS 5737,19	Requirement Standard
Volvo VCS 5737,29	Requirement Standard
Volvo VCS 5740,1049	Phosphate Coatings Microstructural Characterisation
Volvo VCS 5751,59	Requirement Standard
Volvo VCS 5751,7	Requirement Standard for Paint Systems
Volvo VCS 5752,539	Requirement Standard
Volvo VCS 5771,5	Corrosion Test



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