CERTIFICATE OF ACCREDITATION

This is to attest that

POSITRONE TEST HIZMETLERI A.S.

ALI KAHYA FATIH MAH. SAKIP SABANCI BULVARI NO:71/1 IZMIT
KOCAELI 41310, TURKEY

Testing Laboratory TL-752

has met the requirements of AC89, *IAS Accreditation Criteria for Testing Laboratories*, and has demonstrated compliance with ISO/IEC Standard 17025:2017, *General requirements for the competence of testing and calibration laboratories.* This organization is accredited to provide the services specified in the scope of accreditation.

Effective Date November 26, 2024

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Issued under the authority of IAS management

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SCOPE OF ACCREDITATION

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POSITRONE TEST HIZMETLERI A.S.

www.positrone.com

Location	Address	Contact Name	Contact Phone	Scope pages
Main Lab	ALI KAHYA FATIH MAH. SAKIP SABANCI BULVARI NO:71/1 IZMIT, KOCAELI 41310, TURKEY	Baris Köksal	+90-5447709029	2-10
Satellite Lab	OVACIK MAH. DEGIRMENLI SOKAK NO:28 BASISKELE, KOCAELI 41140, TURKEY	Baris Köksal	+90-5447709029	10-14

Accredited to ISO/IEC 17025:2017 *Effective Date November 26, 2024*

Main Lab

Corrosion	
AECTP 300	Climatic Environmental Tests (Method 309, Salt Fog)
AECTP 300	Climatic Environmental Tests (Method 319 Acidic Atmosphere)
ASTM B117	Standard Practice for Operating Salt Spray (Fog) Apparatus
ASTM G85	Standard Practice for Modified Salt Spray (Fog) Testing (Except Annex 4 (test with SO2 gas))
CETP: 00.00-L-467	Global Laboratory Accelerated Cyclic Corrosion Test (Manual application of salt solution and use of climatic cabinet)
GMW14872	Cyclic corrosion laboratory test
IEC 60058-2-11	Basic environmental testing procedures - Part 2-11: Tests - Test Ka: Salt mist
IEC 60068-2-52	Environmental testing - Part 2-52: Tests - Test Kb: Salt mist, cyclic (sodium chloride solution)
IEC 60068-2-60	Environmental testing - Part 2-60: Tests - Test Ke: Flowing mixed gas corrosion test
ISO 9227	Corrosion tests in artificial atmospheres -- Salt spray tests
MIL STD 810H 509.7	Environmental Engineering Considerations and Laboratory Tests - Part Two, Salt Fog
MIL STD 810H-CHG-1 509.8	Environmental Engineering Considerations and Laboratory Tests - Part Two, Salt Fog
MIL STD 810G 509.5	Environmental Engineering Considerations and Laboratory Tests - Part Two, Salt Fog
MIL STD 810G-CHG-1 509.6	Environmental Engineering Considerations and Laboratory Tests - Part Two, Salt Fog
MIL STD 810F 509.4	Environmental Engineering Considerations and Laboratory Tests - Part Two, Salt Fog
Renault D17 2028	Corrosion test by automatic change of phases of salt spray, drying and humidity (ECC1)
RNES-G-00001 (D17 1058)	Neutral salt spray test

RTCA D0-160	Environmental Conditions and Test Procedures for Airborne Equipment Section 14 Salt Fog
TSH1555G	Guidelines for Laboratory Cyclic Corrosion Test Procedures for Painted Automotive Parts
VCS 1027,1449	Accelerated corrosion test, version II - ACT II
VDA 233-102	Cyclic corrosion testing of materials and components in automotive construction
VW PV 1209	Add-On Parts/Hang-On Parts with a Zinc or Zinc Alloy Coating and Aluminum Add-On Parts/Hang-On Parts (e.g., Heat Exchanger, Refrigerant Line), Corrosion Test (Environmental Corrosion Cycle Test)
VW PV 1210	Body and Add-On Parts/Hang-On Parts, Corrosion Test
Electronics	
IPC-TM-650 Part 2.1.1	Microsectioning, Manual and Semi or Automatic Method
IPC-TM-650 Part 2.3.25	Ionic Analysis of Circuit Boards, Ion Chromatography Method
IPC-TM-650 Part 2.3.28	Detection and Measurement of Ionizable Surface Contaminants by Resistivity of Solvent Extract (ROSE) (Except Dynamic Extraction Method)
ISO 16750-2	Road vehicles – Environmental conditions and testing for electrical and electronic equipment, Part 2: Electrical loads (except clause 4.13)
ISO 16750-4	Road vehicles – Environmental conditions and testing for electrical and electronic equipment, Part 4: Climatic loads
ISO 16750-5	Road vehicles – Environmental conditions and testing for electrical and electronic equipment, Part 5: Chemical loads
JEDEC JESD22A121	Measuring Whisker Growth on Tin and Tin Alloy Surface Finishes
JIS-Z-3198-7	Test methods for lead-free solders - Part 7: Methods for shear strength of solder joints on chip components
M3327	Media resistance for electrical, electronic and mechatronic assemblies
M3499-1	General requirements for electrical, electronic and mechatronic systems Part 1: Verification of functionality and quality (Item 5. Functional requirements and tests)
M3499-1	General requirements for electrical, electronic and mechatronic systems Part 1: Verification of functionality and quality (Item 6. Climatic requirements and tests, except K-13)
M3499-1	General requirements for electrical, electronic and mechatronic systems Part 1: Verification of functionality and quality (Item 8. Electrical requirements and tests, except E-EMV)
M3499-1	General requirements for electrical, electronic and mechatronic systems Part 1: Verification of functionality and quality (Item 9. Chemical requirements and tests)
M3499-1	General requirements for electrical, electronic and mechatronic systems Part 1: Verification of functionality and quality (Item 10. Life time tests) (Except L-03)
M3499-2	General requirements for electrical, electronic and mechatronic systems Part 2: Test conditions and electrical tests
MBN LV 124-1	Electric and Electronic Components in Motor Vehicles up to 3,5t – General Requirements, Test Conditions and Tests - Part I: Electrical Requirements and Tests 12 V On-Board Electrical System
MBN LV 124-2	Electric and Electronic Components in Motor Vehicles up to 3,5t – General Requirements, Test Conditions and Tests - Part 2: Environmental Requirements (Item 14. Climatic requirements and tests, eExcept K-15a)

MBN LV 124-2	Electric and Electronic Components in Motor Vehicles up to 3,5t – General Requirements, Test Conditions and Tests - Part 2: Environmental Requirements (Item 15. Chemical requirements and tests)
MIL STD 750-2A 2076.4	Radiography
RTCA D0-160	Environmental Conditions and Test Procedures for Airborne Equipment Section 16: Power Input (Item 16.6.1.1, 16.6.1.2, 16.6.1.3, 16.6.1.4, 16.6.1.5, 16.6.16, 16.6.2.1, 16.6.2.2, 16.6.2.3, 16.6.2.4, 16.7.4, 16.7.7 only)
VW 80000	Electric and Electronic Components in Motor Vehicles up to 3.5 t - General Requirements, Test Conditions, and Tests (Item 7. Electrical requirements and tests)
VW 80000	Electric and Electronic Components in Motor Vehicles up to 3.5 t - General Requirements, Test Conditions, and Tests (Item 11. Climatic requirements and tests) (Except K-15)
VW 80000	Electric and Electronic Components in Motor Vehicles up to 3.5 t - General Requirements, Test Conditions, and Tests (Item 12. Chemical requirements and tests)
Environmental Simulation	
BMW PR 303.5	Alternating climate test for trim parts
BMW PR 306.5	Solar Simulation for Trim Parts
DIN 53497	Testing of plastics – Hot storage test on mouldings made of thermoplastic moulding materials without external mechanical stressing
DIN 75220	Ageing of automotive components in solar simulation units
FLTM BO 040-01	Short and long term environmental testing
IEC 60068-2-1	Environmental testing - Part 2-1: Tests - Test A: Cold (no limitations)
IEC 60068-2-2	Environmental testing - Part 2-2: Tests - Test B: Dry heat (up to 180°C)
IEC 60068-2-14	Environmental testing - Part 2-14: Tests - Test N: Change of temperature (except Clause 9)
IEC 60068-2-30	Environmental testing – Part 2-30: Tests – Test Db: Damp heat, cyclic (12 h + 12 h cycle)
IEC 60068-2-31	Environmental testing procedures — Part 2: Tests; Test Ec: Free fall, Clause 5.2
IEC 60068-2-38	Environmental testing - Part 2-38: Tests - Test Z/AD: Composite temperature/humidity cyclic test
IEC 60068-2-78	Environmental testing - Part 2-78: Environmental testing - Part 2-78: Tests - Test Cab: Damp heat, steady state
ISO 6270-2	Paints and varnishes – Determination of resistance to humidity, Part 2: Condensation (in-cabinet exposure with heated water reservoir)
MIL STD 810H 501.7	Environmental Engineering Considerations and Laboratory Tests - Part Two, High temperature
MIL STD 810H-CHG-1 501.7	Environmental Engineering Considerations and Laboratory Tests - Part Two, High temperature
MIL STD 810G 501.5	Environmental Engineering Considerations and Laboratory Tests - Part Two, High temperature
MIL STD 810G-CHG-1 501.6	Environmental Engineering Considerations and Laboratory Tests - Part Two, High temperature

MIL STD 810F 501.4	Environmental Engineering Considerations and Laboratory Tests - Part Two, High temperature
MIL STD 810H 502.7	Environmental Engineering Considerations and Laboratory Tests - Part Two, Low temperature
MIL STD 810H-CHG-1 502.7	Environmental Engineering Considerations and Laboratory Tests - Part Two, Low temperature
MIL STD 810G 502.5	Environmental Engineering Considerations and Laboratory Tests - Part Two, Low temperature
MIL STD 810G-CHG-1 502.6	Environmental Engineering Considerations and Laboratory Tests - Part Two, Low temperature
MIL STD 810F 502.4	Environmental Engineering Considerations and Laboratory Tests - Part Two, Low temperature
MIL STD 810H 503.7	Environmental Engineering Considerations and Laboratory Tests - Part Two, Temperature shock
MIL STD 810H-CHG-1 503.7	Environmental Engineering Considerations and Laboratory Tests - Part Two, Temperature shock
MIL STD 810G 503.5	Environmental Engineering Considerations and Laboratory Tests - Part Two, Temperature shock
MIL STD 810G-CHG-1 503.6	Environmental Engineering Considerations and Laboratory Tests - Part Two, Temperature shock
MIL STD 810F 503.4	Environmental Engineering Considerations and Laboratory Tests - Part Two, Temperature shock
MIL STD 810H 505.7	Environmental Engineering Considerations and Laboratory Tests - Part Two, Solar radiation (Sunshine)
MIL STD 810H-CHG-1 505.7	Environmental Engineering Considerations and Laboratory Tests - Part Two, Solar radiation (Sunshine)
MIL STD 810G 505.5	Environmental Engineering Considerations and Laboratory Tests - Part Two, Solar radiation (Sunshine)
MIL STD 810G-CHG-1 505.6	Environmental Engineering Considerations and Laboratory Tests - Part Two, Solar radiation (Sunshine)
MIL STD 810F 505.4	Environmental Engineering Considerations and Laboratory Tests - Part Two, Solar radiation (Sunshine)
MIL STD 810H 507.6	Environmental Engineering Considerations and Laboratory Tests - Part Two, Humidity
MIL STD 810H-CHG-1 507.6	Environmental Engineering Considerations and Laboratory Tests - Part Two, Humidity
MIL STD 810G 507.5	Environmental Engineering Considerations and Laboratory Tests - Part Two, Humidity
MIL STD 810G-CHG-1 507.6	Environmental Engineering Considerations and Laboratory Tests - Part Two, Humidity
MIL STD 810F 507.4	Environmental Engineering Considerations and Laboratory Tests - Part Two, Humidity
Renault D47 1165	Accelerated Ageing - Product Applied for Bonding, Sealing, Anti-gritting, Damping, Anti-corrosion And Protection Functions
Renault D47 1234	Parts Including Plastic Components - Heat Behavior in Non Radiating Dry Oven
Renault D47 1309	Materials And Parts of Automotive Equipment - Ageing According to Given Climatic Cycle

VW PV 1200	Vehicle Parts - Testing Of Resistance To Environmental Cycle Test (+80/-40)°;C
VW PV 2005	Vehicle Parts - Testing of Resistance to Environmental Cycle Test.
Ingress Protection	
IEC 60529	Degrees of protection provided by enclosures (IP Code)
ISO 20653	Road vehicles – Degrees of protection (IP code) – Protection of electrical equipment against foreign objects, water and access
Material Characterization	
ASTM D395	Standard Test Methods for Rubber Property—Compression Set (Method B only)
ASTM D1149	Standard Test Methods for Rubber Deterioration - Cracking in an Ozone Controlled
ASTM D2240	Standard Test Method for Rubber Property—Durometer Hardness (Durometer A and D)
DBL 5307	Flame retardant properties – Interior trim parts, Requirements and test specifications
DIN 53435	Testing of plastics –Bending test and impact test on dynstat test specimens (except DB)
DIN 75200	Determination of the burning behavior of interior materials in motor vehicles
Fiat 7-G2000	Determining the resistance to combustion of the non-metallic materials for parts inside vehicle passenger compartment
FLTM BN 151-05	Determination of 180° peel adhesion strength of laminates
FLTM BN 151-06	Determination of 90° adhesion strength of interior materials to rigid or flexibles substrates
FLTM BP 101-01	Rubber - Degradation by Ozone
FMVSS No. 302	Flammability of interior materials
IEC 60695-2-10	Fire hazard testing - Part 2-10: Glowing/hot-wire based test methods - Glow-wire apparatus and common test procedure
IEC 60695-2-11	Fire hazard testing - Part 2-11: Glowing/hot-wire based test methods - Glow-wire flammability test method for end products (GWEPT)
IEC 60695-2-12	Fire hazard testing - Part 2-12: Glowing/hot-wire based test methods - Glow-wire flammability index (GWFI) test method for materials
ISO 34-1	Rubber, vulcanized or thermoplastic - Determination of tear strength - Part 1: Trouser, angle and crescent test pieces
ISO 34-2	Rubber, vulcanized or thermoplastic - Determination of tear strength - Part 2: Small (Delft) test pieces
ISO 37	Rubber, vulcanized or thermoplastic – Determination of tensile stress-strain properties
ISO 48-2	Rubber, vulcanized or thermoplastic — Determination of hardness — Part 2: Hardness between 10 IRHD and 100 IRHD (Method N only)
ISO 48-4	Rubber, vulcanized or thermoplastic — Determination of hardness — Part 4: Indentation hardness by durometer method (Shore hardness) (Shore A and D)
ISO 178	Plastics – determination of flexural properties
ISO 179-1	Plastics – Determination of Charpy impact properties – Part 1: Non-instrumented impact test
ISO 188	Rubber, vulcanized or thermoplastic - Accelerated ageing and heat resistance tests

ISO 247-1	Rubber - Determination of ash - Part 1: Combustion method
ISO 527-2	Plastics – Determination of tensile properties, Part 2: Test conditions for moulding and extrusion plastics
ISO 815-1	Rubber, vulcanized or thermoplastic — Determination of compression set — Part 1: At ambient or elevated temperatures
ISO 1183-1	Plastics — Methods for determining the density of non-cellular plastics — Part 1: Immersion method, liquid pycnometer method and titration method (Method A only)
ISO 1407	Rubber, Determination of solvent extract
ISO 1431-1	Rubber, vulcanized or thermoplastic — Resistance to ozone cracking —Part 1: Static and dynamic strain testing
ISO 2285	Rubber, vulcanized or thermoplastic - Determination of tension set under constant elongation, and of tension set, elongation and creep under constant tensile load
ISO 2781	Rubber, vulcanized or thermoplastic - Determination of density
ISO 3451-1	Plastics — Determination of ash — Part 1: General methods (Method A only)
ISO 3795	Road vehicles, and tractors and machinery for agriculture and forestry — Determination of burning behavior of interior materials
PSA D45 1333	Interior cabin materials horizontal flammability
UNECE Regulation No. 118	Uniform technical prescriptions concerning the burning behavior of materials used in the interior construction of certain categories of motor vehicle
VW TL 1010	Materials for Vehicle Interiors – Burning Behavior, Material Requirements
Surface Characterization	
AECTP 300	Climatic Environmental Tests (Method 314 Contamination by Fluids)
ASTM B487	Standard Test Method for Measurement of Metal and Oxide Coating Thickness by Microscopical Examination of Cross Section
DBL 5404 item 7.14	Resistance to cosmetics
DBL 5404 item 7.15	Resistance to care products
DIN 53236	Colouring materials - Conditions of measurement and evaluation for the determination of colour differences for paint coatings, similar coatings and plastics
FLTM BI 106-01	Coating adhesion test
FLTM BN 108-02	Resistance to abrasion - Taber abraser
FLTM BO 162-01	Resistance to scratch and marr
ISO 105-A02	Textiles – Tests for colour fastness, Part A02: Grey scale for assessing change in colour
ISO 105-A03	Textiles – Tests for colour fastness, Part A03: Grey scale for assessing staining
ISO 105-X12	Textiles – Tests for colour fastness, Part X12: Colour fastness to rubbing
ISO 2409	Paints and varnishes — Cross-cut test
ISO 2808	Paints and varnishes — Determination of film thickness (Method 6A only)
ISO 2813	Paints and varnishes – Determination of gloss value at 20 degrees, 60 degrees and 85 degrees

ISO 4582	Plastics – Determination of changes in colour and variations in properties after exposure to glass-filtered solar radiation, natural weathering or laboratory radiation sources
ISO 22088-3	Plastics — Determination of resistance to environmental stress cracking (ESC) — Part 3: Bent strip method
LP-463DD-18-01	Scratch and mar resistance of automotive interior coatings and exterior plastics using 5-finger tester
MIL-STD-810H 504.3	Environmental Engineering Considerations and Laboratory Tests - Part Two, Contamination by Fluids
MIL STD 810H-CHG-1 504.3	Environmental Engineering Considerations and Laboratory Tests - Part Two, Contamination by Fluids
MIL STD 810G 504.1	Environmental Engineering Considerations and Laboratory Tests - Part Two, Contamination by Fluids
MIL STD 810G-CHG-1 504.2	Environmental Engineering Considerations and Laboratory Tests - Part Two, Contamination by Fluids
MIL STD 810F 504.1	Environmental Engineering Considerations and Laboratory Tests - Part Two, Contamination by Fluids
RTCA D0-160	Environmental Conditions and Test Procedures for Airborne Equipment Section 11 Fluids Susceptibility
SAE J400	Test for Chip Resistance of Surface Coatings
SAE J575	Test Methods and Equipment for Lighting Devices and Components for Use on Vehicles Less than 2032 mm in Overall Width (Item 4.4: Abrasion Test of Plastic Lamp Lens Material only)
SAE J948	Test method for determining resistance to abrasion of automotive bodycloth, vinyl, and leather, and the snagging of automotive bodycloth
VW PV 3952	Plastic Components, Determination of the Scratch Resistance of Surfaces without Finish Treatment in Vehicle Interiors and Exteriors
Vehicle Interior Air Quality	
DIN 75201	Determination of the fogging characteristics of trim materials in the interior of automobiles
EN 322	Wood-based panels - Determination of moisture content
FLTM BO 131-03	Interior odor test
FLTM BZ 156-01	Determination of Formaldehyde, Aldehyde and Ketone Emission from Non-Metallic Components, Parts and Materials in the Vehicle Interior (Part B only)
FLTM BZ 157-01	Determination of Organic Emissions from Non-Metallic Materials in Vehicle Interiors by Headspace Gas Chromatography
GMW3205	Determining the Resistance to Odor Propogation of Interior Materials
GMW3235	Fogging Characteristics of Trim Materials
ISO 6452	Rubber - or plastics-coated fabrics — Determination of fogging characteristics of trim materials in the interior of automobiles
ISO 12219-2	Interior air of road vehicles - Part 2: Screening method for the determination of the emissions of volatile organic compounds from vehicle interior parts and materials -Bag method
ISO 12219-3	Interior air of road vehicles - Part 3: Screening method for the determination of the emissions of volatile organic compounds from vehicle interior parts and materials - Micro-scale chamber method

ISO 12219-4	Interior air of road vehicles - Part 4: Method for the determination of the emissions of volatile organic compounds from vehicle interior parts and materials - Small chamber method
ISO 16000-3	Indoor air — Part 3: Determination of formaldehyde and other carbonyl compounds in indoor and test chamber air — Active sampling method
ISO 16000-6	Indoor air — Part 6: Determination of organic compounds (VVOC, VOC, SVOC) in indoor and test chamber air by active sampling on sorbent tubes, thermal desorption and gas chromatography using MS or MS FID
LP-463KC-09-01	Odor evaluation of interior trim materials
MS300-34	Test method of odor for interior materials
MS300-54	Standard Test Method - Fogging
PSA D10 5495	Vehicle Passenger Compartment Materials Evaluation of the Quantity of Volatile Organic Compounds (VOC) by Thermal Desorption/ GC/MS (FID)
PSA D40 5535	Analyse Du Formaldehyde Et Autres Composes Carbonyles Dans Les Materiaux De L'habitacle Vehicule Par Chromatographie Liquide
PSA D45 1727	Interior Trim Materials and Passenger Compartment Parts - Fogging
PV 3015	Non-Metallic Materials for Interior Trim - Determining Condensable Constituents (G)
PV 3900	Components in Passenger Compartment - Odor Test
SAE J1756	Determination of the fogging characteristics of interior automotive materials
TSM0503G	Fogging test method for non-metallic materials
VCS 1027,2719	Test Method - Fogging - Organic Materials
VCS 1027,2729	Test method, Odor of trim materials in vehicles - Organic materials
VDA 270	Determination of the odour characteristics of trim materials in motor vehicles
VDA 275	Form Part of the Vehicle Interior - Determination of Formaldehyde levy - Measuring Techniques After the Modified Bottle Method
VDA 277	Non-metallic materials of vehicle interiors, Determination of the emission of organic compounds
VDA 278	Thermal Desorption Analysis of Organic Emissions for the Characterization of Non-Metallic Materials for Automobiles
VW PV 3341	Non-Metallic Materials in Automotive Interior Trim - Determination of emission of organic compounds
VW PV 3925	Polymer Materials - Determination of Formaldehyde Emission - Measurement by a Modified Bottle Method (Method A only)
Weathering	
ASTM D4587	Standard Practice for Fluorescent UV-Condensation Exposures of Paint and Related Coatings
ASTM D7869	Standard practice for xenon arc exposure test with enhanced light and water exposure for transportation coatings
FCA 50451	Accelerated aging by atmospheric agents (Method A only)
FCA 50471/01	Alternating ultraviolet radiation/humidity resistance test
FLTM BO 116-01	Resistance to Interior Weathering
ISO 105-B06	Textiles – Tests for colour fastness, Part B06: Colour fastness and ageing to artificial light at high temperatures: Xenon arc fading lamp test
ISO 4892-2	Plastics — Methods of exposure to laboratory light sources — Part 2: Xenon-arc lamps

ISO 4892-3	Plastics — Methods of exposure to laboratory light sources — Part 2: Flourescent UV lamps
ISO 16474-2	Paints and varnishes — Methods of exposure to laboratory light sources — Part 2: Xenon-arc lamps
ISO 16474-3	Paints and varnishes — Methods of exposure to laboratory light sources — Part 3: Fluorescent UV lamps
RNES-B-00088	Test method - Weatherability Test Methods for Exterior Parts and Materials (Methods I and IV only)
RNES-B-20085	Test method – Light resistance Test Methods for Interior parts (except Method II)
SAE J2412	Accelerated exposure of automotive interior trim components using a controlled irradiance xenon-arc apparatus
SAE J2527	Performance based standard for accelerated exposure of automotive exterior materials using a controlled irradiance xenon-arc apparatus
TSH1585G	Xenon-arc lam type test methods for accelerated weathering resistance of paint film (Method III only)
TSL0601G	Criteria for test for quality of color change by aging (Method E only)
VW PV 1303	Non-Metallic Materials - Xenon Arc Light Aging of Vehicle Interior Components
VW PV 3929	Non-Metallic Materials - Weathering in Moist, Hot Climate (Exterior)
VW PV 3930	Non-Metallic Materials - Weathering in Moist, Hot Climate

Satellite Lab

Environmental Simulation	
AECTP 300	Climatic Environmental Tests – Method 302: High Temperature (Procedure-I and Procedure-II only)
AECTP 300	Climatic Environmental Tests – Method 303: Low Temperature (Procedure-I and Procedure-II only)
AECTP 300	Climatic Environmental Tests – Method 304: Thermal Shock (Procedure-I and Procedure-II only)
AECTP 300	Climatic Environmental Tests – Method 305: Solar Radiation (Procedure-I and Procedure-II only)
AECTP 300	Climatic Environmental Tests – Method 306: Humid Heat (Test Type 1 and Test Type 2 only)
AECTP 300	Climatic Environmental Tests – Method 315: Freeze/Thaw (Procedure-II and Procedure-III only)
BMW PR 303.5	Alternating climate test for trim parts
BMW PR 306.5	Solar Simulation for Trim Parts
DIN 53497	Testing of plastics – Hot storage test on moldings made of thermoplastic molding materials without external mechanical stressing
DIN 75220	Ageing of automotive components in solar simulation units
FLTM BO 040-01	Short and long term environmental testing
IEC 60068-2-1	Environmental testing - Part 2-1: Tests - Test A: Cold (no limitations)
IEC 60068-2-2	Environmental testing - Part 2-2: Tests - Test B: Dry heat (up to 180°C)
IEC 60068-2-14	Environmental testing - Part 2-14: Tests - Test N: Change of temperature(except Clause 9)

IEC 60068-2-30	Environmental testing – Part 2-30: Tests – Test Db: Damp heat, cyclic (12 h +12 h cycle)
IEC 60068-2-38	Environmental testing - Part 2-38: Tests - Test Z/AD: Composite temperature/humidity cyclic test
IEC 60068-2-78	Environmental testing - Part 2-78: Environmental testing - Part 2-78: Tests - Test Cab: Damp heat, steady state
MIL STD 810H 501.7	Environmental Engineering Considerations and Laboratory Tests - Part Two, High temperature
MIL STD 810H-CHG-1 501.7	Environmental Engineering Considerations and Laboratory Tests - Part Two, High temperature
MIL STD 810G 501.5	Environmental Engineering Considerations and Laboratory Tests - Part Two, High temperature
MIL STD 810G-CHG-1 501.6	Environmental Engineering Considerations and Laboratory Tests - Part Two, High temperature
MIL STD 810F 501.4	Environmental Engineering Considerations and Laboratory Tests - Part Two, High temperature
MIL STD 810H 502.7	Environmental Engineering Considerations and Laboratory Tests - Part Two, Low temperature
MIL STD 810H-CHG-1 502.7	Environmental Engineering Considerations and Laboratory Tests - Part Two, Low temperature
MIL STD 810G 502.5	Environmental Engineering Considerations and Laboratory Tests - Part Two, Low temperature
MIL STD 810G-CHG-1 502.6	Environmental Engineering Considerations and Laboratory Tests - Part Two, Low temperature
MIL STD 810F 502.4	Environmental Engineering Considerations and Laboratory Tests - Part Two, Low temperature
MIL STD 810H 503.7,	Environmental Engineering Considerations and Laboratory Tests - Part Two, Temperature shock
MIL STD810H-CHG-1 503.7	Environmental Engineering Considerations and Laboratory Tests - Part Two, Temperature shock
MIL STD 810G 503.5	Environmental Engineering Considerations and Laboratory Tests - Part Two, Temperature shock
MIL STD 810G-CHG-1 503.6	Environmental Engineering Considerations and Laboratory Tests - Part Two, Temperature shock
MIL STD 810F 503.4	Environmental Engineering Considerations and Laboratory Tests - Part Two, Temperature shock
MIL STD 810H 505.7	Environmental Engineering Considerations and Laboratory Tests - Part Two, Solar radiation (Sunshine)
MIL STD810H-CHG-1 505.7	Environmental Engineering Considerations and Laboratory Tests - Part Two, Solar radiation (Sunshine)
MIL STD 810G 505.5	Environmental Engineering Considerations and Laboratory Tests - Part Two, Solar radiation (Sunshine)
MIL STD 810G-CHG-1 505.6	Environmental Engineering Considerations and Laboratory Tests - Part Two, Solar radiation (Sunshine)
MIL STD 810F 505.4	Environmental Engineering Considerations and Laboratory Tests - Part Two, Solar radiation (Sunshine)
MIL STD 810H 507.6	Environmental Engineering Considerations and Laboratory Tests - Part Two - Humidity
MIL STD 810H-CHG-1 507.6	Environmental Engineering Considerations and Laboratory Tests - Part Two - Humidity

MIL STD 810G 507.5	Environmental Engineering Considerations and Laboratory Tests - Part Two - Humidity
MIL STD 810G-CHG-1 507.6	Environmental Engineering Considerations and Laboratory Tests - Part Two - Humidity
MIL STD 810F 507.4	Environmental Engineering Considerations and Laboratory Tests - Part Two - Humidity
MIL STD 810H 524.1	Environmental Engineering Considerations and Laboratory Tests - Freeze Thaw (Procedure-II and Procedure-III only)
MIL STD 810H-CHG-1 524.1	Environmental Engineering Considerations and Laboratory Tests - Freeze Thaw (Procedure-II and Procedure-III only)
MIL STD 810G 524	Environmental Engineering Considerations and Laboratory Tests - Freeze Thaw (Procedure-II and Procedure-III only)
MIL STD 810G-CHG-1 524.1	Environmental Engineering Considerations and Laboratory Tests - Freeze Thaw (Procedure-II and Procedure-III only)
RTCA DO-160	Environmental Conditions and Test Procedures for Airborne Equipment - Section 4: Temperature and Altitude (Section 4.5.1,4.5.2,4.5.3,4.5.4,4.5.5 only)
RTCA DO-160	Environmental Conditions and Test Procedures for Airborne Equipment - Section 5: Temperature Variation (Category-A, Category-B, Category-C only)
RTCA DO-160	Environmental Conditions and Test Procedures for Airborne Equipment - Section 6: Humidity (Category-A, Category-B, Category-C only)
SAE J575	Test Methods and Equipment for Lighting Devices and Components for Use on Vehicles Less than 2032 mm in Overall Width - Item 4.6: Thermal Cycle Test
SAE J575	Test Methods and Equipment for Lighting Devices and Components for Use on Vehicles Less than 2032 mm in Overall Width - Item 4.8: Solar Irradiation
UN ECE R100	Uniform provisions concerning the approval of vehicles with regard to specific requirements for the electric power train - Annex 9B: Thermal shock and cycling test
Vibration & Shock	
AECTP 400	Mechanical Environmental Tests - Method 401: Vibration (Procedure-I, Procedure-II,Procedure-III,Procedure-IV only)
AECTP 400	Mechanical Environmental Tests - Method 403: Classical Waveform Shock (Procedure-I, Procedure-II,Procedure-III,Procedure-IV only)
AECTP 400	Mechanical Environmental Tests - Method 405: Gun Fire (Procedure-I, Procedure-II, Procedure-III, Procedure-IV only)
AECTP 400	Mechanical Environmental Tests - Method 415: Pyroshock (Procedure-IV only)
AECTP 400	Mechanical Environmental Tests - Method 417: SRS Shock
AECTP 400	Mechanical Environmental Tests - Method 420: Buffet Vibration (Figure A1, A2, A3, A4, B1, B3, B4, B5, B6 only)
AECTP 400	Mechanical Environmental Tests - Method 422: Ballistic Shock
IEC 60068-2-6	Environmental testing — Part 2-6: Testing, Test Fc: Vibration (Sinusoidal)
IEC 60068-2-27	Environmental testing – Part 2-27: Tests – Test Ea and guidance: Shock
IEC 60068-2-64	Environmental testing — Part 2-64: Test methods — Test Fh — Vibration, broad-band random (digital control) and guidance
IEC 60068-2-80	Environmental testing — Part 2-80: Tests — Test Fi: Vibration — Mixed mode testing
IEC 61373	Railway applications – Rolling stock equipment – Shock and vibration tests - Section 8: Functional random vibration test conditions (Class 1A, 1B, 2, 3 only)

IEC 61373	Railway applications – Rolling stock equipment – Shock and vibration tests - Section 9: Simulated long-life testing at increased random vibration levels (Class 1A, 1B, 2 only)
IEC 61374	Railway applications – Rolling stock equipment – Shock and vibration tests - Section 10: Shock testing conditions (Class 1A, 1B only)
ISO 16750-3	Road vehicles — Environmental conditions and testing for electrical and electronic equipment — Part 3: Mechanical loads
MIL-STD-167-1A	Mechanical Vibrations of Shipboard Equipment - Type-1: Environmental Vibration (Item 5.1.2.4.2, 5.1.2.4.3, 5.1.2.4.6, 5.1.2.4.7 only)
M3256-1	Vibration test for electronic and electro-mechanical components in MAN commercial vehicle construction, Cab attachment parts
MIL STD 810H 514.8	Environmental Engineering Considerations and Laboratory Tests - Part Two - Vibration (Categories: 4, 7, 8, 9, 12, 13, 14, 21, 22 and 24)
MIL STD 810H-CHG-1 514.8	Environmental Engineering Considerations and Laboratory Tests - Part Two - Vibration (Categories: 4, 7, 8, 9, 12, 13, 14, 21, 22 and 24)
MIL STD 810G 514.6	Environmental Engineering Considerations and Laboratory Tests - Part Two - Vibration (Categories: 4, 7, 8, 9, 12, 13, 14, 21, 22 and 24)
MIL STD 810G-CHG-1 514.7	Environmental Engineering Considerations and Laboratory Tests - Part Two - Vibration (Categories: 4, 7, 8, 9, 12, 13, 14, 21, 22 and 24)
MIL STD 810F 514.5	Environmental Engineering Considerations and Laboratory Tests - Part Two - Vibration (Categories: 4, 7, 8, 9, 12, 13, 14, 21, 22 and 24)
MIL STD 810H 516.8	Environmental Engineering Considerations and Laboratory Tests - Part Two - Shock (Procedures: 1, 2 and 5)
MIL STD 810H-CHG-1 516.8	Environmental Engineering Considerations and Laboratory Tests - Part Two - Shock (Procedures: 1, 2 and 5)
MIL STD 810G 516.6	Environmental Engineering Considerations and Laboratory Tests - Part Two - Shock (Procedures: 1, 2 and 5)
MIL STD 810G-CHG-1 516.7	Environmental Engineering Considerations and Laboratory Tests - Part Two - Shock (Procedures: 1, 2 and 5)
MIL STD 810F 516.5	Environmental Engineering Considerations and Laboratory Tests - Part Two - Shock (Procedures: 1, 2 and 5)
MIL STD 810H 517.3	Environmental Engineering Considerations and Laboratory Tests –Pyroshock (Procedure-V only)
MIL STD 810H-CHG-1 517.3	Environmental Engineering Considerations and Laboratory Tests –Pyroshock (Procedure-V only)
MIL STD 810G 517.1	Environmental Engineering Considerations and Laboratory Tests –Pyroshock (Procedure-V only)
MIL STD 810G-CHG-1 517.2	Environmental Engineering Considerations and Laboratory Tests –Pyroshock (Procedure-V only)
MIL STD 810F 517	Environmental Engineering Considerations and Laboratory Tests –Pyroshock (Procedure-V only)
RTCA DO-160	Environmental Conditions and Test Procedures for Airborne Equipment - Section 7: Operational Shocks and Crash Safety (Section 7.3.1, Section 7.3.2 only)
RTCA DO-160	Environmental Conditions and Test Procedures for Airborne Equipment - Section 8: Vibration (Section 8.5,8.6,8.7,8.8 only)
SAE J575	Test Methods and Equipment for Lighting Devices and Components for Use on Vehicles Less than 2032 mm in Overall Width - Item 4.2: Vibration Test
UN ECE R100	Uniform provisions concerning the approval of vehicles with regard to specific requirements for the electric power train - Annex 9A: Vibration Test

FLTM: *Ford Laboratory Test Method*

SAE: *Society of Automotive Engineers*

UNECE: *United Nations Economic Commission for Europe*