
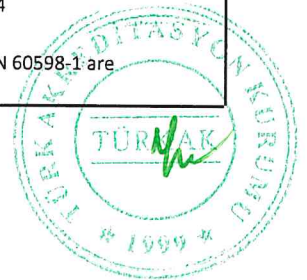


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Accreditation Scope


 <p style="font-size: small; text-align: center;">Test TS EN ISO/IEC 17025 AB-1374-T</p>	<p>PTC ÜRÜN TEST VE BELGELENDİRME SANAYİ TİCARET LİMİTED ŞİRKETİ</p> <p>Accreditation Nr: AB-1374-T Revision Nr: 01 Date: 06.08.2020</p>
As a Testing Laboratory	
<p>Address: AYDINLI MAH. PATLAYICI MADDELER YOLU CADDESİ BEYOĞLU SAN SİTESİ D1 BLOK O:26 TUZLA 54953 İSTANBUL/TÜRKİYE</p>	<p>Phone : 0216 2250341 Fax : E-Mail : ozcan@ptctesting.com Website : www.ptctesting.com</p>

Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Machinery	Electrical Equipment Of Machines - Part 1: General requirements	TS EN 60204-1+A1 IEC 60204 SASO-GSO-IEC-60204-1
Luminaires	Luminaires - Part 1: General requirements and tests Except Clauses: Rough service luminaires - Vibration requirements, Photobiological Hazards	TS EN 60598-1 EN 60598-1 IEC 60598-1 SASO-IEC-60598-1 Except Clauses: Clause 4.20, Clause 4.24
Luminaires	Luminaires - Part 2: Particular requirements - Section One: Fixed General Purpose Luminaires	TS 8698 EN 60598-2-1 IEC 60598-2-1 SASO-GSO-IEC-60598-2-1 Excluded clauses in TS EN 60598-1 are not covered.
Luminaires	Luminaires Part 2: Particular Requirements - Section 2 Recessed Luminaires	TS EN 60598-2-2 IEC 60598-2-2 SASO-GSO-IEC-60598-2-2 Excluded clauses in TS EN 60598-1 are not covered.
Luminaires	Luminaires - Part 2-3: Particular Requirements - Luminaires For Road And Street Lighting	TS EN 60598-2-3 IEC 60598-2-3 SASO-GSO-IEC-60598-2-3 Excluded clauses in TS EN 60598-1 are not covered.
Luminaires	Luminaires - Part 2: Particular requirements - Section 4: Portable General Purpose Luminaires	TS EN 60598-2-4 IEC 60598-2-4 SASO-GSO-IEC-60598-2-4 Excluded clauses in TS EN 60598-1 are not covered.

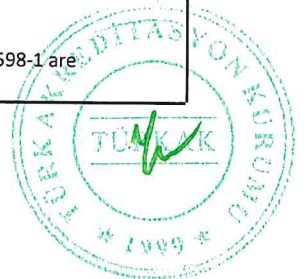


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 <p>Test TS EN ISO/IEC 17025 AB-1374-T</p>	<p>PTC ÜRÜN TEST VE BELGELENDİRME SANAYİ TİCARET LİMİTED ŞİRKETİ</p> <p>Accreditation Nr: AB-1374-T Revision Nr: 01 Date: 06.08.2020</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Luminaire	Luminaire - Part 2-5: Particular Requirements - Floodlights	TS EN 60598-2-5 IEC 60598-2-5 SASO-GSO-IEC-60598-2-5 Excluded clauses in TS EN 60598-1 are not covered.
Luminaire	Luminaire -- Part 2-8: Particular requirements - Handlamps	TS EN 60598-2-8 EN 60598-2-8 IEC 60598-2-8 (Except Clauses) Madde 8.11.4.1 Excluded clauses in TS EN 60598-1 are not covered.
Luminaire	Luminaire - Part 2-20: Particular requirements - Lighting chains	TS EN 60598-2-20 EN 60598-2-20 IEC 60598-2-20 Excluded clauses in TS EN 60598-1 are not covered.
Luminaire	Luminaire - Part 2-22: Particular requirements - Luminaire for emergency lighting	TS EN 60598-2-22 IEC 60598-2-22 EN 60598-2-22 (Except Clauses) Madde 22.7.8 Madde 22.7.10 Madde 22.7.11 Madde 22.7.12 Madde 22.7.13 Madde 22.7.14 Madde 22.7.19 Madde 22.7.20 Madde 22.13.1 Madde 22.13.6 Madde 22.13.7 Madde 22.17.1 Madde 22.17.5 Madde 22.18 Madde 22.19 Madde 22.20 Excluded clauses in TS EN 60598-1 are not covered.

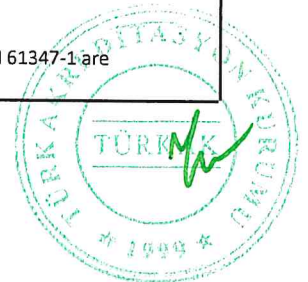


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 <p style="font-size: small;">TÜRKAK Test TS EN ISO IEC 17025 AB-1374-T</p>	<p>PTC ÜRÜN TEST VE BELGELENDİRME SANAYİ TİCARET LİMİTED ŞİRKETİ</p> <p>Accreditation Nr: AB-1374-T Revision Nr: 01 Date: 06.08.2020</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Final Products	Degrees Of Protection Provided By Enclosures (IP Code) (For Electrical Equipments)	TS 3033 EN 60529 EN 60529/A1 IEC 60529 (Except : IPX9)
Non Metallic Materials	Ball Pressure Test Methods	TS EN 60695-10-2 IEC 60695-10-2 SASO-IEC-60695-10-2
Non Metallic Materials	Glow-Wire Flammability Test Method	TS EN 60695-2-11 IEC 60695-2-11 SASO-IEC-60695-2-11
Non Metallic Materials	Needle-Flame Test Method	TS EN 60695-11-5 IEC 60695-11-5 SASO-IEC-60695-11-5
Non Metallic Materials	Method For The Determination Of The Proof And The Comparative Tracking Indices Of Solid Insulating Materials	TS EN 60112 IEC 60112
LED Modules	LED Modules - For General Lighting - Safety Specifications	TS EN 62031 IEC 62031 SASO-IEC-62031 (Except Clauses) Clause 5.5, Clause 7 g, Clause 13
Lamp Controlgear	Lamp Controlgear - Part 2: General and Safety Requirements	TS EN 61347-1 IEC 61347-1 (Except Clauses) Clause 10 Clause 13 Annex A, Annex B, Annex D, Annex E, Annex F, Annex G, Annex I
Lamp Controlgear	Lamp controlgear - Part 2-13: Particular requirements for d.c. or a.c. supplied electronic controlgear for LED modules	TS EN 61347-2-13 EN 61347-2-13 IEC 61347-2-13 SASO-GSO-IEC-61347-2-13 (Except Clauses) Annex I, Annex J Excluded clauses in TS EN 61347-1 are not covered.

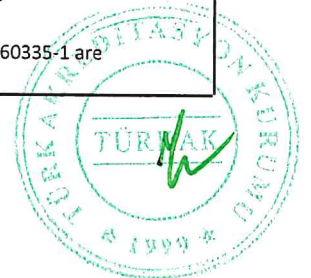


Annex of the certificate (Page 4/8)

Accreditation Scope


 <p style="font-size: 8px; margin: 0;">Test TS EN ISO IEC 17025 AB-1374-T</p>	<p>PTC ÜRÜN TEST VE BELGELENDİRME SANAYİ TİCARET LİMİTED ŞİRKETİ</p> <p>Accreditation Nr: AB-1374-T Revision Nr: 01 Date: 06.08.2020</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Final Products	Environmental resistance tests - Part 2-75: Tests - Test Eh: Hammer tests	TS EN 60068-2-75 IEC 60068-2-75
Final Products	Environmental testing -- Part 1: General and guidance	TS EN 60068-1 EN 60068-1 -10 °C ≤ , ≤ +150 °C
Final Products	Environmental testing - Part 2-1: Tests - Tests A: Cold	TS EN 60068-2-1 EN 60068-2-1 Test Range: ≥ -10 °C
Final Products	Environmental testing - Part 2-2: Tests - Test B: Dry heat	TS EN 60068-2-2 EN 60068-2-2 Test Range: ≤ 150 °C
Enclosures	Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)	TS EN 62262 EN 62262 IEC 62262
Household and similar electrical appliances	Household and similar electrical appliances - Safety - Part 1: General requirements	TS EN 60335-1 IEC 60335-1 SASO-GSO-IEC-60335-1 (Except Clauses) Clause 19.11.4, Clause 22.32, Clause 22.42, Clause 22.48, Clause 24, Annex C, Annex G, Annex H, Annex J, Annex R
Household and similar electrical appliances - Skin or hair care	Household and similar electrical appliances - Safety - Part 2.21: Particular requirements for appliances for skin or hair care	TS EN 60335-2-23 EN 60335-2-23 IEC-60335-2-23 SASO-GSO-IEC-60335-2-23 Excluded clauses in TS EN 60335-1 are not covered.

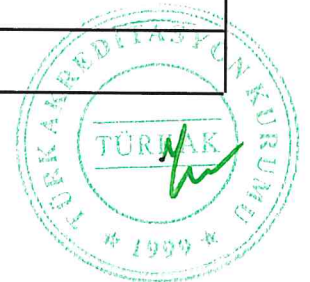


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 <p style="font-size: 8px; margin: 0;">Test TS EN ISO IEC 17025 AB-1374-T</p>	<p>PTC ÜRÜN TEST VE BELGELENDİRME SANAYİ TİCARET LİMİTED ŞİRKETİ</p> <p>Accreditation Nr: AB-1374-T Revision Nr: 01 Date: 06.08.2020</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Household and similar electrical appliances - Pumps	Household and similar electrical appliances - Safety -Part 2 - 41: Particular requirements for pumps	TS EN 60335-2-41 IEC 60335-2-41 SASO-GSO-IEC-60335-2-41 Excluded clauses in TS EN 60335-1 are not covered.
Household and similar electrical appliances - heating liquids	Household and similar electrical appliances - Safety Part 2-15: Particular requirements for appliances for heating liquids	TS EN 60335-2-15 EN 60335-2-15 IEC-60335-2-15 SASO-IEC-60335-2-15 Excluded clauses in TS EN 60335-1 are not covered.
Household and similar electrical appliances - grills, toasters and similar portable cooking appliances	Household and similar electrical appliances - Safety - Part 2-9 : Particular requirements for grills, toasters and similar portable cooking appliances	TS 2005 EN 60335-2-9 EN 60335-2-9 IEC 60335-2-9 SASO-IEC-60335-2-9 Excluded clauses in TS EN 60335-1 are not covered.
Household and similar electrical appliances - room heaters	Household and similar electrical appliances - Safety - Part 2-30: Particular requirements for room heaters	TS EN 60335-2-30 IEC 60335-2-30 EN 60335-2-30 SASO-GSO-IEC-60335-2-30 Excluded clauses in TS EN 60335-1 are not covered.
Luminaires and Bulbs	Light and lighting - Measurement and presentation of photometric data of lamps and luminaires - Part 1: Measurement and file format	TS EN 13032-1 EN 13032-1
Luminaires and Bulbs	Light and lighting - Measurement and presentation of photometric data of lamps and luminaires - Part 2: Presentation of data for indoor and outdoor work places	TS EN 13032-2 EN 13032-2
Luminaires and Bulbs	Light and lighting - Measurement and presentation of photometric data of lamps and luminaires - Part 4: LED lamps, modules and luminaires	TS EN 13032-4 EN 13032-4
Luminaires and Bulbs	Approved Method: Optical And Electrical Measurements Of Solid-State Lighting Products	ANSI/IES LM-79-08

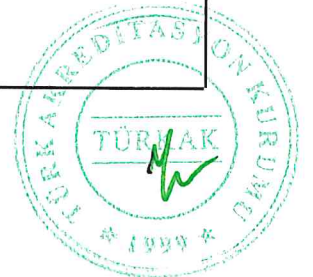


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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Luminaires and Bulbs	IES Approved Method: Measuring Luminous Flux And Color Maintenance Of LED Packages, Arrays And Modules	ANSI/IES LM-80-15
Luminaires and Bulbs	Projecting Long Term Lumen Maintenance of LED Light Sources	IES TM-21-11
Luminaires and Bulbs	Projecting Long-Term Luminous Flux Maintenance of LED Lamps And Luminaires	IES TM-28-14
Luminaires and Bulbs	Measuring Luminous Flux And Color Maintenance of LED Lamps, Light Engines, And Luminaires	ANSI/IES LM-84-14
Luminaires and Bulbs	Characterization Of LED Light Engines And LED Lamps For Electrical And Photometric Properties As A Function of Temperature	ANSI/IES LM-82-12
Luminaires	Luminaire performance - Part 1: General requirements	IEC 62722-1 SASO-IEC-PAS-62722-1
Luminaires	Luminaire performance - Part 2-1: Particular requirements for LED luminaires	IEC 62722-2-1 SASO-IEC-PAS-62722-2-1
LED Modules	LED modules for general lighting - Performance requirements	IEC 62717 SASO-IEC-PAS-62717
LED Lamps	Self-ballasted LED lamps for general lighting services with supply voltages > 50 V - Performance requirements	TS EN 62612
Bulbs	Energy Efficiency Functionality And Labelling Requirements For Lighting Products - Part 1 Tests: Lamp efficacy Rated lifetime, lamp Lifetime Lamp survival factor Lumen maintenance, lamp lumen maintenance factor Number of switching cycles Starting time Lamp warm-up time Premature failure rate Lamp power factor Chromaticity coordinates CCT CRI (Color Randerin Index) Lamp dimensions	SASO 2870



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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Luminaires and Bulbs	Energy Efficiency, Functionality And Labelling Requirements For Lighting Products Part 2 Tests: Lumen maintenance Lamps survival factor Power Luminous flux Displacement factor CRI, CCT Beam angle Lumen maintenance Endurance	SASO 2902
Sanitary Installation Products Sanitary Fittings Fixtures	Dimensional Requirements	SASO 2655 (SASO 2656) (Clause 6.8) TS EN 817 (Clause 6) TS EN 200 (Clause 6) TS EN 1112 (Clause 8)
Sanitary Installation Products Sanitary Fittings Fixtures	Handle Security	SASO 2656 (SASO 2655) (Clause 5)
Sanitary Installation Products Sanitary Fittings Fixtures	Flow Capacity (Hydraulic Features)	SASO 2656 (SASO 2655) (Clause 7) TS EN 817 (Clause 10; Except Clause 10.7) TS EN 200 (Clause 10) TS EN 1112 (Clause 11)
Sanitary Installation Products Sanitary Fittings Fixtures	Bending Strength.	SASO 2656 (SASO 2655) (Clause 4.2)
Sanitary Installation Products Sanitary Fittings Fixtures	Thread Torque Strength.	SASO 2656 (SASO 2655) (Clause 4.3)
Sanitary Installation Products Sanitary Fittings Fixtures	Valve Operating Test	SASO 2656 (SASO 2655) (Clause 6)
Sanitary Installation Products Sanitary Fittings Fixtures	Life Cycle (on valve, tub/shower diverter and on spout)	SASO 2656 (SASO 2655) (Clause 8)



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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Sanitary Installation Products Sanitary Fittings Fixtures	Swing Spout Strenght	SASO 2656 (SASO 2655) (Clause 4.4)
Sanitary Installation Products Sanitary Fittings Fixtures	Burst strength	SASO 2656 (SASO 2655) (Clause 4.1) TS EN 817 (Clause 9) TS EN 200 (Clause 9)
Sanitary Installation Products Sanitary Fittings Fixtures	Impermeability Tests	TS EN 1112 (Clause 9) TS EN 817 (Clause 8) TSS EN 200 (Clause 8)
Sanitary Installation Products Sanitary Fittings Fixtures	Mechanical Properties	TS EN 1112 (Clause 10; Except Clause 10.3) TS EN 200 (Clause 11; Except Clause12) TS EN 817 (Clause 11; Except Clause 12)

End of Scope

Banülol

G. Banu MÜDERRİSOĞLU
Secretary General

