



Test Laboratuvarları

LVT Test Laboratuvarları Ltd. Şti.

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AB-0341-T

22-2499-
R0-N1-1D

09-22

DENEY RAPORU

Test Report

1/13

Müşteri

Client

: LANDE ENDÜSTRİYEL METAL ÜRÜNLERİ SAN. VE TİC. A.Ş.

Adres

Address

: 20. CD. NO:14-16, 26250 OSB / ODUNPAZARI / ESKİŞEHİR

İmalatçı

Manufacturer

: LANDE ENDÜSTRİYEL METAL ÜRÜNLERİ SAN. VE TİC. A.Ş.

Teklif Numarası

Order No

: 22-2499-R0

Deney Numunesi

Test Sample

: 19" SAFEBOX

Marka

Trade Mark

: LANDE

Deney Metodu

Test Method

: TS 3033 EN 60529:1997 + A1:2005 + A2:2014 + T1:1997 + T2:2004 + AC:2017 +
A2/AC: 2019

Deney Tarihi

Date of Test

: 24.08.2022 - 25.08.2022

Toplam Sayfa Sayısı

Total Number of Pages

: 13

Basım Tarihi

Date of Issue

: 05.09.2022

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The test and / or measurements results, the uncertainties (if required) with confidence probability and test methods are given on the following pages which are part of this report.

Mühür

Seal

Deney Sorumlusu

Person in Charge of Test

Bölüm Müdürü

Department Manager



Cem AKDOĞAN

Ata Gürül ARSLANLI

(Handwritten signatures of Cem AKDOĞAN and Ata Gürül ARSLANLI)

Rapor detaylarını karekod ile kontrol edebilirsiniz.
You can check the report details via QR code.

Bu rapor, Laboratuvarımızın yazılı izni olmadan kısmen kopyalanıp çoğaltılamaz.
İmzasız ve mühürlü raporlar geçersizdir.

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FRT.30/Rev06/0422

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1. Numunelerin Tanımı Definition of the Samples

19" SAFEBOX

1.1 19" SAFEBOX

(22-2499-R0-N1)

Numune Kabul Tarihi Receiving Date	:	24.08.2022	
Numune Seri No Serial No	:	LN-SBO-IP5522U6060-W30-71	
Beyan Yalıtım Gerilimi Rated Insulation Voltage	U _i :	-	
Beyan Koruma Derecesi Rated Degree of Protection	IP :	55	İç Kısımlar: - Internal Part
Beyan Mekanik Darbe Kodu Rated Mechanical Impact Code	IK :	-	
Numune Boyutları Dimensions of the Sample	mm :	600x600x1250	
Boya – Kaplama Özellikleri Paint – Coating Properties	:	See Pages:12-13	
Numune Ağırlığı Weight of the Sample	kg :	-	
Mahfaza Montaj Şekli Assembly Type of Enclosure	:	☒ Cıvatalı Bolt on	☐ Kaynaklı Welded
Cihaz – Malzeme Listesi Device – Component List	:	See Pages:12-13	

2. Deney Sonuçları Test Results

Deney sonuçları, müşteri tarafından laboratuvara teslim edilen ve
: sadece deneyi yapılan numuneye aittir.
The test results only belong to the tested sample(s) delivered to the laboratory by client.

Numune Sample	Uygulanan Deney Applied Test	Sonuç Result
19" SAFEBOX	Degree of Protection Assemblies (IP55)	PASSED

3. Çevre Şartları Environmental Conditions

3.1 Ortam Sıcaklığı Ambient Temperature	:	(27,3±3) °C
3.2 Ortam Nemi Ambient Moisture	:	(32,5±3) %Rh

4. Deney Metodundan Sapma, Ekleme ve Çıkarmalar

Deneyler; standart deney metoduna göre uygulanmıştır.
Tests were made according to the clauses of the relevant standards.

5. Şartnamelere Uygunluk (Gerekli Hallerde) Conformity to Specifications (If Necessary)

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6.	Dağıtım Bilgileri <i>Distribution Information</i>	:	LANDE ENDÜSTRİYEL METAL ÜRÜNLERİ SAN. VE TİC. A.Ş.
7.	Açıklama <i>Explanation</i>	:	*Adres 20. CD. NO:14-16, 26110 OSB / ODUNPAZARI / ESKİŞEHİR olarak revize edilerek rapor güncellenmiştir. Bu rapor 01.09.2022 baskı tarihli 22-2499-R0-N1-1 numaralı raporun yeni baskısıdır ve önceki baskıyı geçersiz kılar.
8.	Ölçüm Belirsizliği <i>Uncertainty of Measurement</i>	:	-



Test Laboratuvarları

Koruma Derecesinin Doğrulanması

Verification of Degree of Protection

9. Deney Uygulamaları:

Test Applications

9.1 Koruma Derecesi (IP55)

Degree of Protection (IP55)

Standart Madde No: 10.3

Standard Sub-clause

9.1.1 Tehlikeli Bölümlere Erişmeye ve Yabancı Katı Cisimlere Karşı Koruma Derecesi

Degree of Protection Against Access to Hazardous Parts and Solid Foreign Objects

Deney Tarihi : 24.08.2022

Test Date

Numune No : 22-2499-R0-N1

Sample No

Beyan Koruma Derecesi : IP55

Rated Degree of Protection

Beyan İzolasyon Gerilimi : -

Rated Insulation Voltage

9.1.1.1 Tehlikeli Bölümlere Erişmeye Karşı Koruma

Protection Against Access to Hazardous Parts

Açıklama :

Explanation

The test sample numbered 22-2499-R0-N1 was closed while all doors and gates were in their normal state and tested according to TS 3033 EN 60529.

The test wire with a diameter of 1 mm and a length of 100 mm (Page 7) was pressed to the points where it could enter the test sample numbered 22-2499-R0-N1 with a force of 1 N and there was no entry in the test sample.

9.1.1.2 Yabancı Katı Cisimlere Karşı Koruma

Protection Against Access to Solid Foreign Objects

Açıklama :

Explanation

The test was carried out in a closed test cabinet (dusting test stand) measuring 2600x1450x1900 mm, with a suitable arrangement that keeps the talcum powder suspended, using a powder circulation pump, using the test cabinet shown in the experiment circuit. 2 kg of talcum powder per cubic meter was used in the test cabinet.

According to category-2, the test sample numbered 22-2499-R0-N1 was placed in the test cabinet without connecting the vacuum pump and the test setup was operated for 8 hours. At the end of the test, the test sample was taken out of the test cabinet and visually inspected.

As a result of the visual inspection, there was no talcum powder entry into the interior of the test sample.





Koruma Derecesinin Doğrulanması

Verification of Degree of Protection

Test Laboratuvarları

9.1.2 Su Girişine Karşı Koruma Derecesi

Degree of Protection Against Ingress of Water

Standart Madde No: 14

Standard Sub-clause

Deney Tarihi : 25.08.2022

Test Date

Numune No : 22-2499-R0-N1

Sample No

Beyan Koruma Derecesi : IP55

Rated Degree of Protection

Beyan İzolasyon Gerilimi : -

Rated Insulation Voltage

Açıklama

Explanation

The test was carried out on the test sample numbered 22-2499-R0-N1 in accordance with the TS 3033 EN 60529 standard.

As a test setup; A hose nozzle (Page 8) with an inner diameter of 6.3 mm was used, and the water flow rate was set as 12.5 liters/minute. The test sample was placed 2.5 meters away from the hose nozzle and the test was carried out. The test was applied for 4 minutes in accordance with the time specified in the standard. The hose nozzle sprayed water on the test sample from all directions.

At the end of the test, the test sample was checked and it was seen that there was no water inlet.

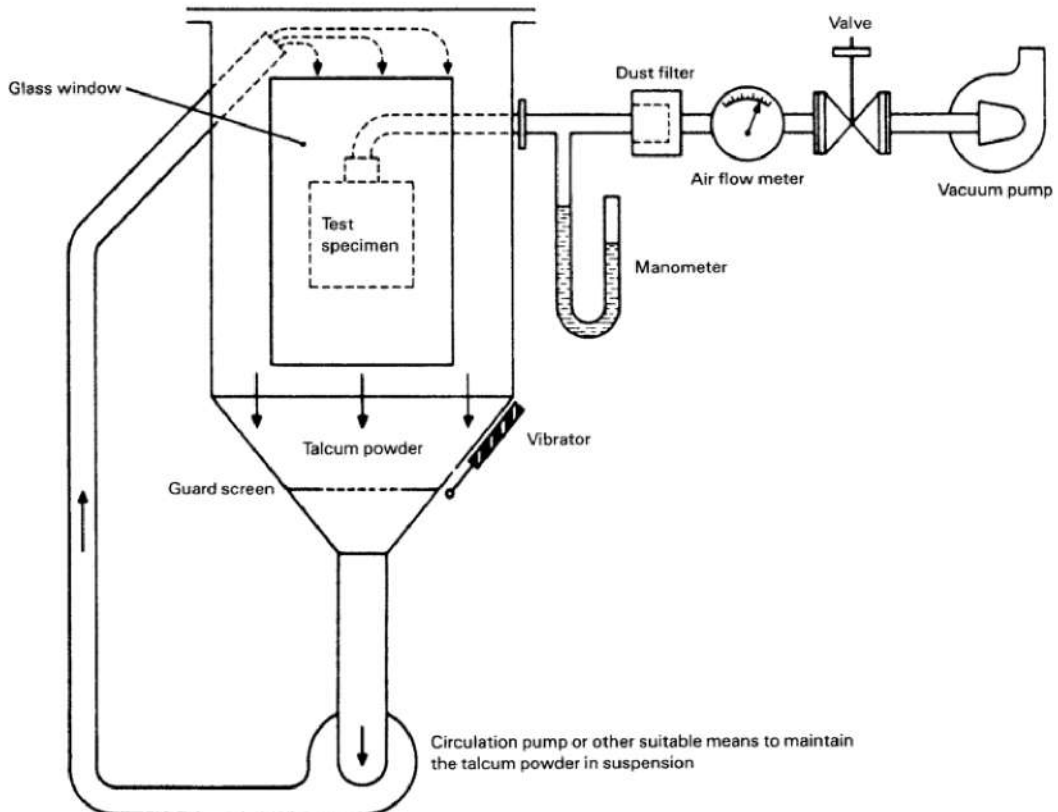
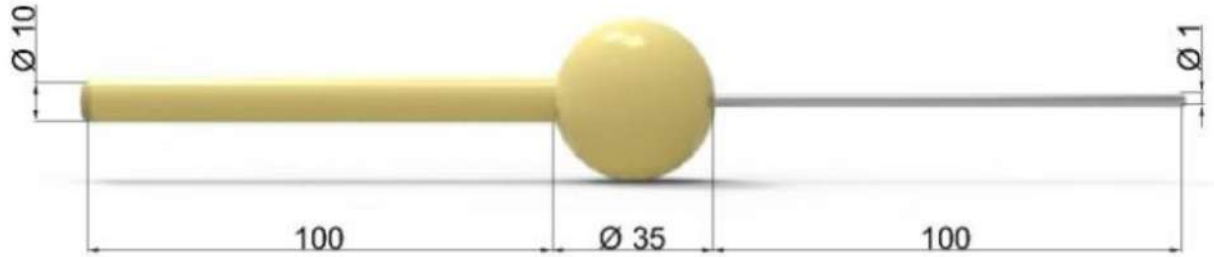
Koruma Derecesinin Doğrulanması

Verification of Degree of Protection

10. Deney ve Ölçüm Bilgileri:

Test and Measuring Arrangement

Cihaz Device	İmalatçı Manufacturer	Seri No. / Kod Serial No / Code	Sertifika No Certificate No	Kalibrasyon Bitiş Tarihi Calibration Due Date
Dusting Test Stand	LVT	LC148	-	No Need Calibration.
Test Probe	LVT	LC207	-	No Need Calibration.
Nozzle (6.3mm)	LVT	LC418	86804	May/2024
Caliper	TM	LC159	179210	September/2023
Steel ruler	MAS	LC443	200602	October/2023
Timer	HITRAX	LC116	31208	February/2023
Humidity Temperature Data Logger	CEM	LC329	2207404	May/2023
Digital Newtonmeter	PCE	LC374	2045536	February/2023
Tape measure	SOYKAN	LC224	1920918	September/2023
Electronic Water Flow Meter	VFA ELEKTRONİK	LC381	DKA050	March/2023



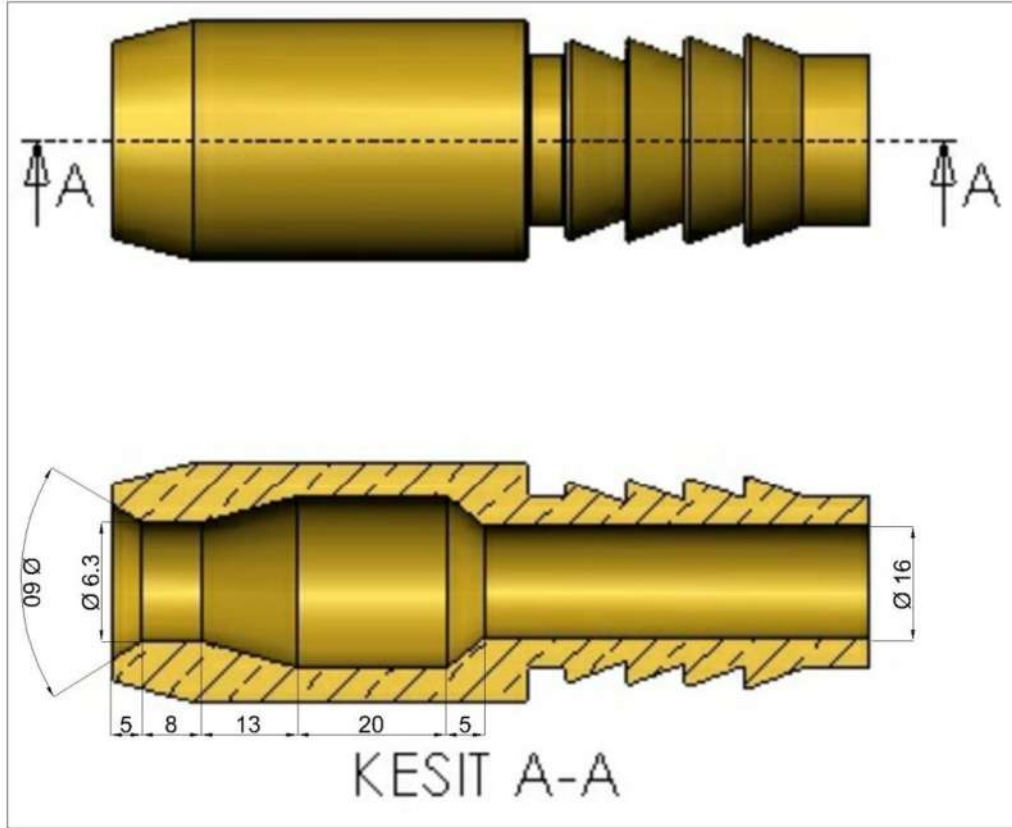


Table 5 – Test conditions for degrees of protection indicated by the first characteristic numeral

First characteristic numeral	Test for protection against	
	access to hazardous parts	solid foreign objects
0	No test required	No test required
1	The sphere of 50 mm Ø shall not fully penetrate and adequate clearance shall be kept	
2	The jointed test finger may penetrate up to its 80 mm length, but adequate clearance shall be kept	The sphere of 12,5 mm Ø shall not fully penetrate
3	The test rod of 2,5 mm Ø shall not penetrate and adequate clearance shall be kept	
4	The test wire of 1,0 mm Ø shall not penetrate and adequate clearance shall be kept	
5	The test wire of 1,0 mm Ø shall not penetrate and adequate clearance shall be kept	Dust-protected as specified in table 2
6	The test wire of 1,0 mm Ø shall not penetrate and adequate clearance shall be kept	Dust-tight as specified in table 2
In the case of the first characteristic numerals 1 and 2, "not fully penetrate" means that the full diameter of the sphere shall not pass through an opening of the enclosure.		

**Table 8 – Test means and main test conditions
for the tests for protection against water**

Second characteristic numeral	Test means	Water flow rate	Duration of test	Test conditions, see
0	No test required	–	–	–
1	Drip box Figure 3 Enclosure on turntable	$1^{+0,5}_0$ mm/min	10 min	14.2.1
2	Drip box Figure 3 Enclosure in 4 fixed positions of 15° tilt	$3^{+0,5}_0$ mm/min	2,5 min for each position of tilt	14.2.2
3	Oscillating tube Figure 4 Spray $\pm 60^\circ$ from vertical, distance max. 200 mm or Spray nozzle Figure 5 Spray $\pm 60^\circ$ from vertical	0,07 l/min $\pm 5\%$ per hole, multiplied by number of holes 10 l/min $\pm 5\%$	10 min 1 min/m ² at least 5 min	14.2.3 a) 14.2.3 b)
4	As for numeral 3 Spray $\pm 180^\circ$ from vertical	As for numeral 3		14.2.4
5	Water jet hose nozzle Figure 6 Nozzle 6,3 mm diameter, distance 2,5 m to 3 m	12,5 l/min $\pm 5\%$	1 min/m ² at least 3 min	14.2.5
6	Water jet hose nozzle Figure 6 Nozzle 12,5 mm diameter, distance 2,5 m to 3 m	100 l/min $\pm 5\%$	1 min/m ² at least 3 min	14.2.6
7	Immersion tank Water-level on enclosure: 0,15 m above top 1 m above bottom	–	30 min	14.2.7
8	Immersion tank Water-level: by agreement	–	by agreement	14.2.8

11. Deney Fotoğrafları:
Test Photographs



Test Photos





Sample Photos



12. **Firma Dokümanları:**
Documentation of Client

19" SAFEbox IP55 Outdoor Cabinet Enclosure

Width: 600 mm
Depth: 600 mm

Load Capacity: 100 kgs.

U Height: 22U

Standards and Compliances:



ISO 9001
Quality Management System

EN 61587-1
Mechanical Structures for
Electronic Equipment

EN IEC 297-1, 19" Mounting
EN IEC 297-2 Overall Cabinet
Dimensions

EN/IEC 60529- IP55 Ingress Protection
performance

EN/IEC 62262- IK10 Mechanical
Impact Resistance

EIA/ ECA-310 (D/E) 19" 482,6 mm and
U 44,45 mm Height Sizing



CE conform to
EN 60950-1
Information Technology
Equipment, Safety,
Part-1: General Requirement

EN IEC 62368-1 Audio/Video,
Information and Communication
Technology Equipment
Part 1: Safety requirements



UL listed to
UL 2416, Outline of Investigation for
Audio/Video, Information and
Communication Technology Equipment
Cabinet, Enclosure and Rack
Systems; UL 60950-1 and CSA
C22.2 NO. 60950-1-07, Information
Technology Equipment Safety
Part 1: General Requirements



Environment Friendly;
ISO 14001 Environmental
Management System
RoHS compliancy
%100 Recyclable Material

Standard Color:



RAL 7035 Light Grey

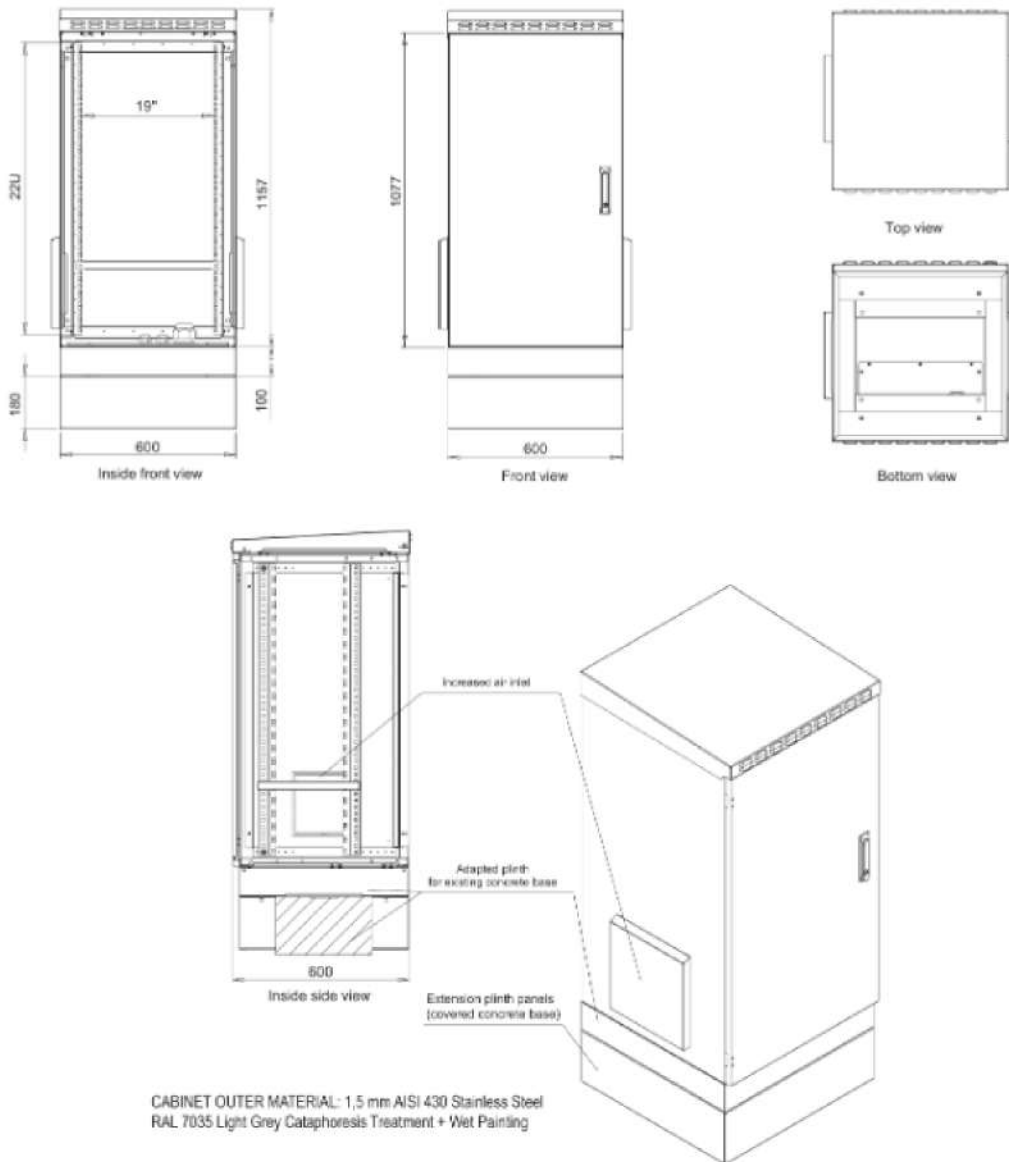


SAFEbox IP55 Outdoor Cabinet Enclosures with 19"
w:600 mm and d:600 mm size, in 22U height.

19" SAFEbox IP55 Outdoor Cabinet Enclosure

Width: 600 mm
Depth: 600 mm

Construction Drawings



19" SAFEbox Series IP55 Outdoor Cabinets Enclosure W=600 mm D=600 mm		
Product Number	Product Description	Size WxDxH mm
LN-SBO-IP5522U6060-W30-71	22U 19" SAFEBox IP55 single skin outdoor cabinet enclosure W=600 mm D=600 mm with 19" galvanized front-rear rails, special galvanized shelf and 2 mm galvanized mounting plate	600x600x1257