



**Report No/** Rapor No: 2024061315-R1

Applicant/Deney Sahibi: Mutlusan Plastik ELEKTRİK San. Ve Tic A.Ş

Applicant Address/ Adres: İkitelli Organize San. Bölgesi Mah. Enkoop Cad. No:7

Contact Person / Yetkili : Başakşehir/İSTANBUL

Mustafa KESKİN

Contact Telephone / Telefon: -

Sample Accepted on / Numune Tarihi: 10.05.2024
Report Date / Rapor Tarihi: 13.06.2024
Total number of pages/Rapor Sayfa: 4 Page

Sample ID: ABS Plastik Pano

	TEST/ INSPECTION	DIRECTIVE	METHOD	RESULT
*	UV Aging	The General Product Safety Directive (GPSD) (2001/95/EC)	Inhouse Method (ISO 4892-2)	PASS

NOTE: This test/inspection result replaces the conformity assessment, can be presented to official institutions, and used in products and brochures.

K.rvefi

AL DE LOS OF THE PROPERTY OF T

Seal Customer Representative

Laboratory Manager

Merve Nur KIRVELİ Merve ÖZLÜ

Test/inspection results, methods and other information about the sample shown in the relevant pages of this Report are based on the information specified in accordance with "Test/inspection Request Form (PR03-F01) conveyed to us from the Applicant. Test/inspection results are valid for the sample as identified above. Sample may not represent the lot which it belongs. This Report does not replace a Product Certificate. Full report or any part of it may not be reproduced or used for any other purpose without the written permission of EUROLAB Laboratory. Sampling has not been done by us. Unsigned and unsealed Reports are invalid. Analysis as indicated with "\*" are in the Scope of our Accreditation Certificate issued from UAF according to TS EN ISO/IEC 17020, 17025, Analysis as indicated with "\*\*" are performed at the external laboratories using accredited test/inspection methods according to EN ISO/IEC 17020, 17025 from UAF. Possible extra notes may add with starting N' to related pages. Tested and remaining samples will be keep in specified terms & conditions at test/inspection request and/or proposal form.Physically, chemically and microbiologically decomposed samples are discarded regardless of the storage period. Applicant can not claim any right in this regard. Results are shown in this Report do not include Measurement Uncertainty values are not taken in consideration during Pass/Fail assessment the of test/inspection results shown in this Report. Evaluation of the test/inspection results using Measurement Uncertainty values is the responsibility of the Applicant. An inspection body shall issue an inspection certificate that does not include the inspection results only when the inspection body can also produce an inspection report containing the inspection results, and when both the inspection certificate and inspection report are traceable to each other.

PR33-F01/08.10.2015/Rev:17.01.2017-R01

Page 1 / 4



#### Scope

This part of ISO 4892 specifies methods for exposing specimens to xenon-arc light in the presence of moisture to reproduce the weathering effects (temperature, humidity and/or wetting) that occur when materials are exposed in actual end-use environments to daylight or to daylight filtered through window glass.

Specimen preparation and evaluation of the results are covered in other International Standards for specific materials.

General guidance is given in ISO 4892-1.

# **Principle**

A xenon arc, fitted with filters, is used to simulate the relative spectral irradiance of daylight in the ultraviolet (UV) and visible regions of the spectrum.

Specimens are exposed to various levels of light, heat, relative humidity and water under controlled environmental conditions.

Wetting is produced by spraying the test specimens with demineralized/deionized water, by immersion in water or by condensation of water vapour onto the surfaces of the specimens.

The procedure includes measurements of the UV irradiance and UV radiant exposure in the plane of the specimens.

# **Test Specimens**

If the test method used for property measurement does not specify the number of test specimens to be exposed, it is recommended that a minimum of three replicate specimens of each material be prepared for each exposure stage.

### **Exposure Conditions**

Exposures using daylight filters (artificial weather)						
		Brightness				
Loop	Exposure Period	Broadband	Narrow	Black Panel	Room	Relative
No.		(300 nm to Band		Temperature	Temperature	Humidity
		400 nm)	(340 nm)	° C	°C	%
		$W/m^2$	W / (m <sup>2</sup> nm)			
1	102 min dry	60 ± 2	0,51 ± 0,02	63 ± 3	38 ± 3	50 ± 10
1	18 min water spray	60 ± 2	0,51 ± 0,02	_	_	

# **Procedure**

# General

It is recommended that at least three test specimens of each material evaluated be exposed in each run to allow statistical evaluation of the results.





#### Mounting the test specimens

Attach the specimens to the specimen holders in the equipment in such a manner that the specimens are not subject to any applied stress. Identify each test specimen by suitable indelible marking, avoiding areas to be used for subsequent testing.

#### **Exposure**

Programme the apparatus with the selected conditions to operate continuously for the required number of cycles at the selected exposure conditions. Maintain these conditions throughout the exposure, keeping any interruptions to service the apparatus and to inspect the specimens to a minimum.

#### Determination of changes in colour or other appearance attributes

#### General

When a polymeric material is exposed to UV radiation and other moderate environmental stresses, the change in most physical properties can be attributed to chemical aging, and the extent of chemical changes may be related to the duration of natural outdoor or artificial weather exposure.

#### **Changes in Color**

Changes in colour of plastics test specimens exposed in accordance with the specific exposure standard are determined by one of the following methods:

- a) An instrumental method; CIE tristimulus values or CIE 1976 L\*a\*b\* Colour space.
- b) <u>Visual assessment using a scale</u>; The grey scale is used for assessing change in colour. In this scale, grade 1 corresponds to the strongest contrast, and grade 5 to zero contrast (two samples with identical colour).

#### **Visual Assessment**

For Color Changes	For Saturation Changes	For Lightness Changes
- More blue or less blue		
- More green or less green	- Less intense	- Light
- More red or less red	- Busier	- Black
- More yellow or less yellow		

#### **Test Result**

Aging: 2 Year

# An instrumental method;

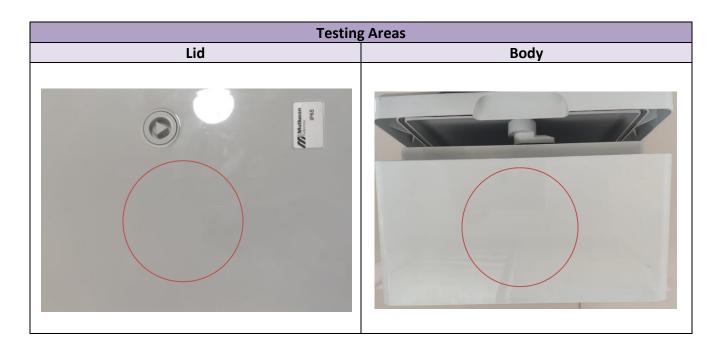
Test Sample	Color Values Before Test			Color Values After Test				
	L	а	b	Brightness	L	а	b	Brightness
Lid	79.07	0.00	1.27	0088.0GU	78.50	0.04	1.13	0081.3 GU
Body	79.16	0.03	1.52	0079.6 GU	78.01	0.07	1.39	0077.3 GU





# Visual assessment using a scale;

Test Sample	Grey Scale Score	Visual Assessment
Lid	4-5	No visible change
Body	4-5	No visible change



# **Sample Images**





\*\*\*End Of Report\*\*\*

