

## IP X5 Test

### Note

The present document is an internal document showing the tests carried out by Khatod in its laboratory. The tests, photos and videos presented in this document are made available for demonstration purposes only. Khatod, with its laboratory, is not a certification body.

If customers need IP and IK accredited certifications, they have to apply to the appointed Certification Bodies, under their sole care and responsibility.

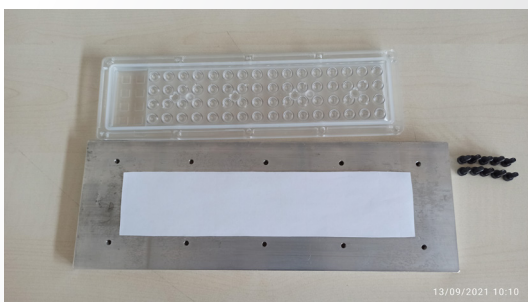
### Data and Analysis

The sample has been subjected to the water-penetration resistance test as follows:

Assembly of the components to test:	Positioning of the assembled sample under the device of watering with:	Water flow:	Water pressure:	Duration of water spraying test on the wrap surface per m <sup>2</sup> :	Minimum duration of the test:	Distance between the nozzle and the wrap surface:
A moisture indicator paper sheet has been interposed between the lens and the clamping base	Nozzle Ø 6.3 millimeters	12.5 l/min ± 5%	30 kPa @ distance of 3m	1 min	3 min	2.5 Meters



### Conclusion



As shown in the photo, the test paper sheet is completely dry after disassembling the system.

Based on the water penetration resistance test, KFLEX64IP serie proved to be fit for purpose.

The product has passed the Khatod test.

**The test paper sheet is dry.**

## Thermal shock resistance level with mechanical constraints



### Initial Visual Inspection

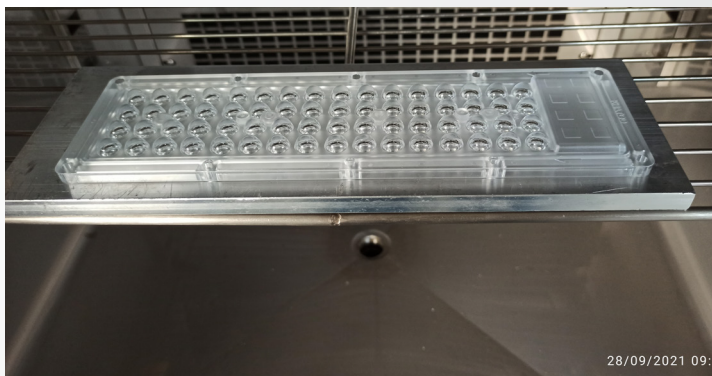
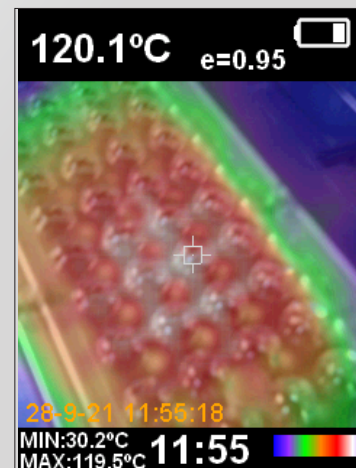
Before starting the tests, a visual inspection was performed in order to check the integrity of the part. The part resulted physically intact. The reference temperature of the component under test is 120° C. The climate chamber work without umidity.

**Photo: the part in the climatic chamber.**

### Temperature set in the climatic chamber



### Temperature detected on the part by IR thermal camera



**Photo: the part in the climatic chamber after testing.**

### Final Visual Inspection

After testing, a final visual inspection was performed. The result was positive (view photo).

Based on the testing result, KFLEX64IP test specimens proved to overcome the thermal stress test up to 120°C, without any physical deterioration of the material.



## Determination of mechanical impact resistance degree (IK tests)

### Initial Visual Inspection

Before starting the tests, a visual inspection was performed in order to check the integrity of the components.

The components resulted physically intact.



1st impact test

2nd impact test

3rd impact test

### Tests Execution

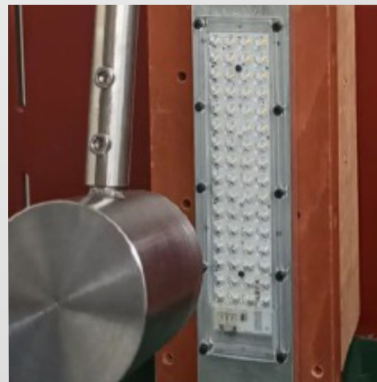
Tests were carried out on the part under test according to IK10 (1 Joule)

Test parameters are as follows:

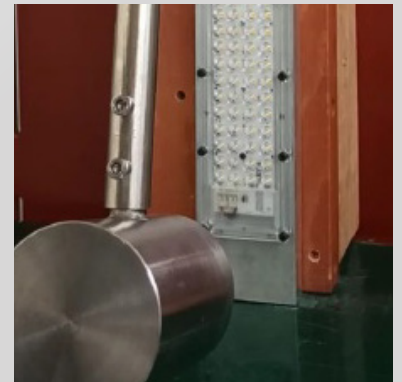
- Impact energy: 10 Joules
- Impacting element: 5000 grams
- Distance between impacting element and the part under test: 20 cm
- Number of impacts: 5



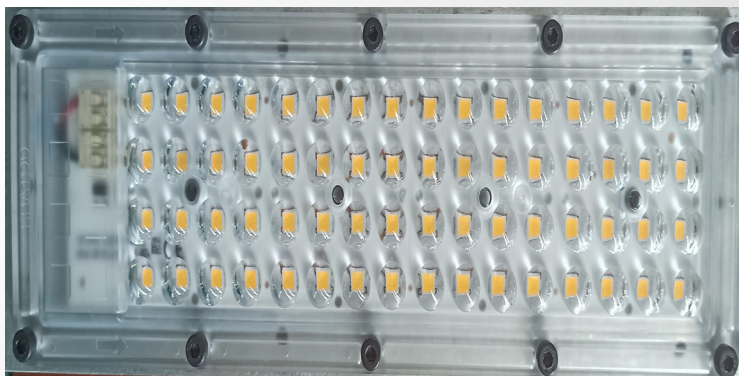
1<sup>st</sup> TEST



2<sup>nd</sup> TEST



3<sup>rd</sup> TEST



### Final Visual Inspection

After testing, a final visual inspection was performed. The result was positive (view photo).