

Thermal shock resistance level with mechanical constraints

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 thermal and IK accredited certifications, they have to apply to the appointed Certification Bodies, under their sole care and responsibility.

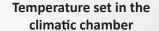


Initial Visual Inspection

Before starting the tests, a visual inspection was performed in order to check the integrity of the part. The part resulted physically intact.

The thermal test was performed at a temperature of 90°C, using the climatic chamber LTH 225°.

Photo: the part 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).

The executed tests show that SAGITTARIO, moulded in PMMA 7N, passed the thermal stress tests without any physical deterioration of the material, up to a temperature of 90°C. At the end of the test the sample size is 259.00 mm.

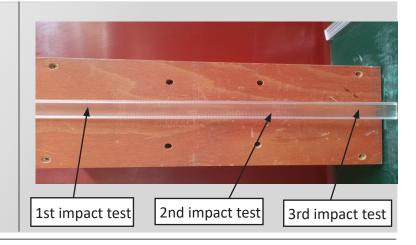


Determination of mechanical impact resistance degree (IK tests)

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.



Tests Execution

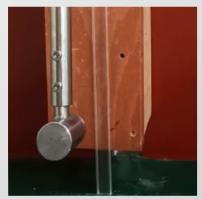
Tests were carried out on the part under test according to IK06 (0.1 Joule)

Test parameters are as follows:

- Impact energy: 0.1 Joule
- Impacting element: 500 grams
- Impacting element radius: 17 mm
- Distance between impacting element and the part under test: 20 cm
- Number of impacts: 5



1st TEST



2nd TEST



3rd TEST



Final Visual Inspection

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