INSTITUTE FOR ENGINEERING OF POLYMER MATERIALS AND DYES



ELASTOMER AND RUBBER TECHNOLOGY DIVISION IN PIASTOW 05-820 Piastow, ul. Harcerska 30

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TESTING LABORATORY "LABGUM" PCA Certificate of Accreditation No AB 147 in the range of testing of raw materials and rubber

Date: 26.03.2018

TEST REPORT No 63/BL/2018

Title: Periodic testing of diameters and fittings. ad. Order of 14.03.2018 PA Order int. No 559259 of 20.03.2018

- Customer name and address: CODIMEX Sp. z o.o. UI. Czerwonych maków 12/33, 01-493 Warszawa,
- 2. Name of representative Andrzej Kawalec, Robert Reszka
- 3. Date of Order and samples receiving: 15.03.2018
- 4. Subject of work according to the Order
 - 4.1. Name of materials/samples:
 - 3 pcs. Diameter meters, 3 pcs. Fittings
 - 4.2. Scope of tests:
 - Cyclic measurement of diameters (scale resistance to abrasion)
 - Deflection at a maximum force of 900 N
- 5. Start and finish date of test:. 15.03.2018
- 6. The Test Report includes the test results obtained within the scope of not accredited.
- 7. We declare that the results of study presented in this Test Report refer to tested samples have received with this order only.
- 8. Without written agreement of "LABGUM" Testing Laboratory management, this Test report may copy only on the whole.

Testing Laboratory "LABGUM"

PCA Certificate of Accreditation No AB 147

9. Results/methods of test, standard No/:

No	Property determination	Test result	Test method Standard No
1	2	3	4
1	Periodic test of the diameters scale (measuring range up to 600 mm, dimensions: total length approx. 830 mm, jaw length approx. 320 mm, cross-section of ruler - rectangle 25x15 mm Test conditions: 100,000 cycles, amplitude 150 mm, frequency 0.5 Hz		Own method of OEiTG
2	Examination of deflection of aluminum fittings with a rectangular cross-section of 25x15 mm, wall thickness of 2 mm and a length of approx. 30 cm. Conditions: the samples were treated with a maximum force of 900 N mm	0.2 – 0.3 * ²	Own method of OEiTG

9. Other information:*

*¹ - handles were attached to the diameters with which they were installed to the testing machine. A cyclic test was carried out to determine the digestibility of the measurement scale. 100,000 cycles were performed with an amplitude of 150 mm and a frequency of 0.5 Hz. The result is shown in the table above (item 1).

 $*^2$ - 3 sets of 3 samples length of approx. 30 cm were prepared for the study. The measuring system consisted of a measuring head and an extensioneter integrated with the machine.

The sample was placed on a forked support (distance of brackets 10 cm) and pressed with a squeegee element 6x20 mm halfway along its length. The sample was operated at a maximum force of 900 N. The table above indicates the minimum and maximum deflection value of the sample (item 2).

AUTHORIZED

p.o. Kierownika Laboratorium Badawczego euro mgr inż. Michał Lewandowski

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