



# NOVOTEST

## TENSILE ADHESION TESTER NOVOTEST AC-1



### Operating Manual

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## **1. Introduction**

This manual is designed to introducing with the device, the principle of action, rules of operation and calibration of mechanical Adhesion «NOVOTEST AC-1", hereinafter the device.

## **2. Appointment**

2.1. The appliance is designed to control the magnitude of adhesion (adhesion strength) of coatings to the substrate.

## **3. Technical characteristics of the device**

- 3.1. Breakout force kg, not more than 200.
- 3.2. Diameter of base mold, mm 15,1 (№ 1) and 19,5 (№ 2)
- 3.3. Specific breakout force  $F_y$ , MPa (kg / mm) for a mold №1 to 10 MPa (kg / mm) and for a mold №2 to 6 MPa (kg / mm).
- 3.4. Scale MPa for molds - 2 (№1) и 1(№2)
- 3.5. The error assignment pull-off force, MPa (kg) for mold №1 -1 (18) and for mold № 2 -0,5 (15).
- 3.6. Overall dimensions, mm, not more Ø52x150
- 3.7. The device Weight, kg, not more 1.

## **4. Completeness**

- 4.1. Tensile Adhesion Tester – 1 unit.
- 4.2. Molds: №1 – 3 pc.  
          №2 – 3 pc.
- 4.3. Ballerina for a cutting area of control – 1 pc.
- 4.4. Two-component epoxy adhesive –1 pc.
- 4.5. CA glue – 1 pc.
- 4.6. Case –1 pc.
- 4.7. Manual – 1 pc.

## **5. Labeling, packaging**

- 5.1. On the body of device is applied the symbol with the trademark of the manufacturer and serial number.

5.2. The instrument and accessory kit placed in the case for storage and transportation.

## **6. Design and Operation**

The basis of the principle of device is measuring the force separation mold that is glued to the controlled surface. Breakout force created by the turning mechanism, consisting of a pair of screw-nut, spring cocking mechanism related to the molds. Value of specific pull-off force is read on the status of the upper face of the body relative to the scale corresponding to the number of molds.

## **7. Intended Use**

### **7.1. Preparing for use**

To prepare device for use:

- clean the surface mold and place of attaching to the product with the skin (fine sandpaper);
- using an epoxy adhesive to prepare it, dissolve in accordance with the directions on the package and mix thoroughly;
- when using single-component CA glue, open the tube;
- sticking to the mold cover, press and hold in accordance with the directions on the package;
- cut with the Ballerina portion of the test coverage around the mold to the metal.

### **7.2 Using the device**

To work with the device:

- rotating the top knob is fully counter-clockwise to release gripping mechanism and the spring (the swivel moves freely in the body);
- screwed gripping mechanism on the molds using a thread at the bottom of the capture mechanism for rotating the device clockwise until it stops at the base;

- smoothly rotating mechanism the spring by rotating the knob clockwise, while the applied force is fixed at the specific scale relative to the upper body trim;
- set required to test procedure specific breakout forces and maintain its specified time;
- if there was no separation of mold, the rotation handle counterclockwise to release the spring mechanism and remove the device from the mold;
- knock the mold with a coating with a chisel and hammer by blow to the lateral face of the adhesive layer;
- in the case of separation the mold, unscrew it from rotating mechanism using the key;
- clean the surface mold from the traces of glue and paint washes or grit.

By results of tests, in accordance with the methodology adopted a decision on whether the application of the test coverage.

**WARNING! After testing and the storage device, release the spring mechanism of the rotary knob until the swivel will move freely in the body.**

## **8. Maintenance**

Maintenance of device made by the manufacturer in case of trouble.

## **9. Storage and transportation**

9.1. The device must be stored at ambient temperature from +5 to +40 ° C and relative humidity up to 80% at 25 ° C.

9.2. The storage should be free of dust, fumes, acids, alkalis and corrosive gases.

9.3. Transporting device in a case can be made by any mode of transport in accordance with the requirements and rules of transportation, operating on the data types of transport.

9.4. During transportation, handling and storage of stock unit should be kept from blows, shocks and moisture.

**10. Warranty**

10.1. The manufacturer guarantees compliance device to the technical requirements for observance of consumer terms of transportation, storage and use.

10.2. Warranty period - 12 months from date of shipment to the consumer.

Manufacture date

\_\_\_\_\_ **Signature**

Sale date

\_\_\_\_\_ **Signature**