

TEST-REPORT

Measurement of the tensile coefficient at the break thermal insulation coating Isollat-A

The measurement was based on GOST 18299-72

Samples heat-insulating coating «Isollat-A»:

1. Plate with dimensions 45x50 mm 3.46 mm thick
2. Plate with dimensions 45x50 mm 3.47 mm thick
3. Plate with dimensions 45x50 mm 3.69 mm thick
4. Plate with dimensions 45x50 mm 3.68 mm thick
5. Plate with dimensions 45x50 mm 3.52 mm thick

The average thickness of the plates is 3.56 mm

The samples were clamped in the tension setting shown in figure 1.

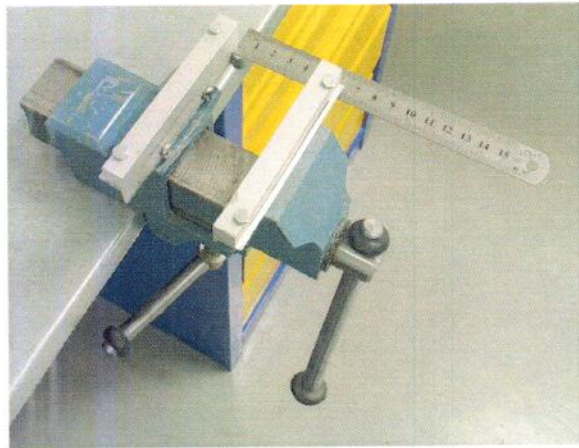


Figure 1

The initial distance between the clips is 20 mm. The distance between the clips is gradually increased until the sample is completely torn.

The final length results are shown in the table below:

Sample	Sample№1	Sample№2	Sample№3	Sample№4	Sample№5
Final length, mm	46	49	40	43	49

The average length of the sample at break is: 45.4 mm.

The coefficient of linear elongation at break is calculated using the formula:

$$K = \frac{l_f - l_0}{l_0} \cdot 100\%$$

Where l_f, l_0 — the length of the sample at the moment of rupture and the initial length, respectively, mm.

Substituting the data into the formula, we get that the coefficient of elongation at break is 127%, that is, the destruction of the coating during elongation occurs only when the original length is increased by more than 2 times.

Examples of samples are shown in figures 2 - 3.

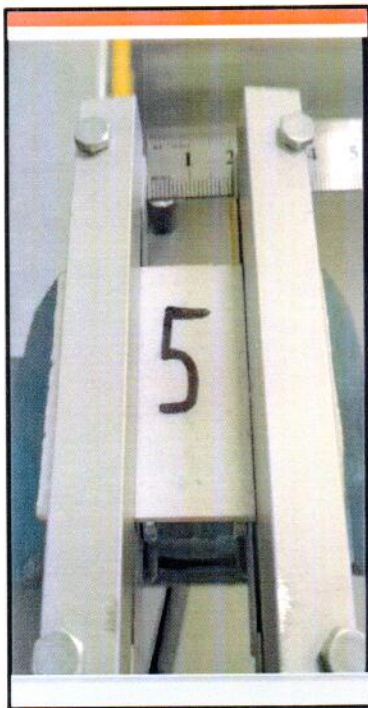


Figure 2



Figure 3



Figure 4

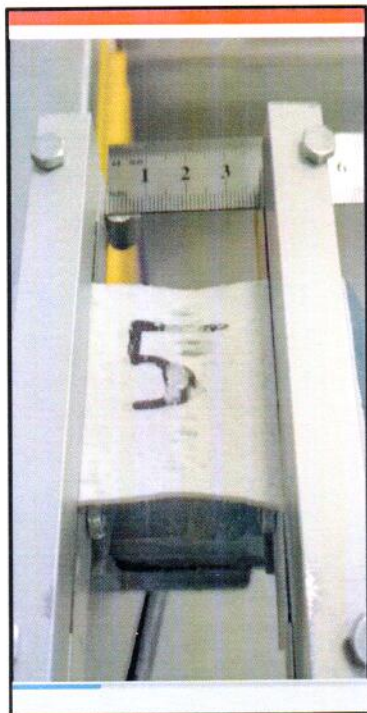


Figure 5



Figure 6

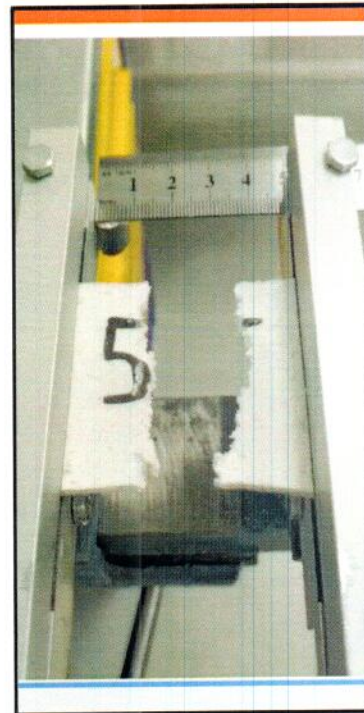


Figure 7

Conclusion: The elongation coefficient at break is **127%**

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