
**Elastic adhesives — Testing of
adhesively bonded joints — Bead
peel test**

*Adhésifs élastiques — Essai des assemblages collés — Essai de pelage
sur cordon*



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Foreword

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This document was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 11, *Products*.

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Elastic adhesives — Testing of adhesively bonded joints — Bead peel test

1 Scope

This document specifies a method for evaluating the adhesion of elastic adhesives and sealants [with a minimum elongation at break of 100 % and a modulus of elasticity of maximum 10 MPa¹⁾] on various substrates. In this way, the effect of various coatings or the surface pre-treatments of the substrate materials on the adhesion can be compared. It can also be used to evaluate the influence of pre-treatment, substrate and adhesive on the long-term durability of adhesively bonded joints and seals. This test can also be used for process monitoring and quality assurance accompanying production.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 10365, *Adhesives — Designation of main failure patterns*

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

4 Principle

Adhesive beads are applied onto substrates. These are then peeled off again after curing and a possible subsequent climate resistance test. If an ageing is performed, the individual steps shall progress in succession with the test specimen, whereby a partial area is peeled off further before the ageing and after every ageing step. The failure pattern is then determined.

5 Sample preparation

5.1 Materials and surface treatment

The bonded joint materials and the surface treatment shall be selected according to the requirements of the application.

5.2 Adhesive application

For every test specimen, at least one adhesive bead with a length of minimum 80 mm, but with sufficient length for the number of intended ageing levels (each about 50 mm) shall be applied onto the jointing part.

1) The elongation and modulus of elasticity are measured according to ISO 527-2.