INTERNATIONAL STANDARD

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Building construction — Sealants — Test method for the determination of stringiness

Construction immobilière — Mastics — Méthode d'essai pour la détermination du pouvoir filant

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Foreword

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The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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ISO 11527 was prepared by Technical Committee ISO/TC 59, *Buildings and civil engineering works*, Subcommittee SC 8, *Sealants*.

Building construction — Sealants — Test method for the determination of stringiness

1 Scope

This International Standard specifies a method for the determination of the stringiness of a wet-applied sealant.

2 Normative references

The following referenced documents are indispensable for the application 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 6927, *Building construction — Jointing products — Vocabulary for sealants*[1)]

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 6927 apply.

4 Principle

This method determines the stringiness of a sealant by measuring the maximum length of a strand or string which can be pulled from a wet sealant sample. A probe (tip) is forced into the wet sealant sample. After a short time, the probe is removed from the sample using a constant rate of pull. An extensometer or similar apparatus is used to provide a constant rate of pull, and the maximum travel before the “string” breaks is reported in millimetres.

5 Apparatus

5.1 Extensometer or similar apparatus

Extensometer or other apparatus, e.g. pneumatic piston, which allows a grip to be pulled at a constant rate and provides a reading of the distance between the grips to the nearest millimetre.

5.2 Probe

— Tip 1 (round) according to Figure 1.

— Tip 2 (conical) according to Figure 2.

— Tip made of aluminium.

1) Under revision.

Dimensions in millimetres

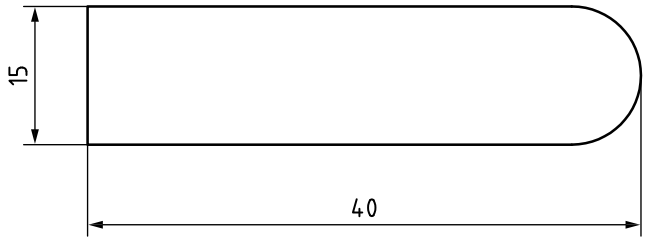

Figure 1 — Tip 1

Dimensions in millimetres

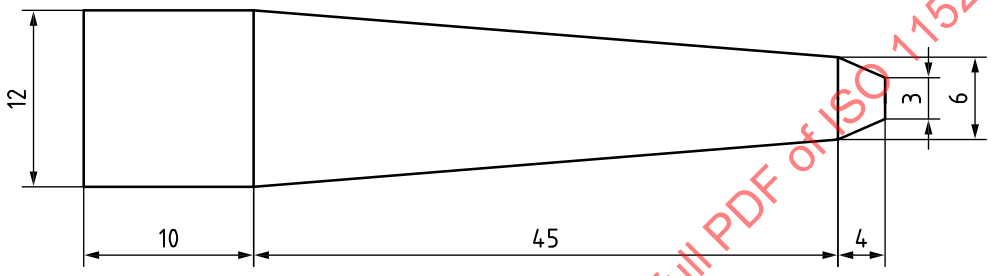

Figure 2 — Tip 2

5.3 Container

Container from any suitable source, with a minimum depth of 30 mm and a minimum diameter of 30 mm.

6 Conditioning

The sealant shall be shelf-aged for a minimum of 1 d from production. Prior to preparation of the specimen, the sealant, the container and the probe (tip) shall be conditioned for 6 h in the unopened container at the test temperature, e.g. (23 ± 2) °C.

7 Preparation of test specimens

Fill the container with the sample and remove excess with a spatula to provide a clean, smooth surface free of bubbles.

8 Test procedure

Attach the probe (tip) to the upper clamp of the extension device (e.g. the extensometer). Fix the container to the lower clamp of the extension device. Slowly raise the container with the wet sealant or move the probe downwards until the nozzle just touches the sample surface. This is the “zero” reading. Alternatively, the “zero” reading can be determined by placing a sheet of paper on the container (assuming the sealant is tooled evenly with the upper edges of the container). Raise the container with the wet sealant further or move the tip downwards at a rate of 60 mm/min until the tip of the nozzle is submerged a minimum of 10 mm into the sample. Begin the test by moving either the probe upwards or the container with the sealant sample downwards at a rate of 700 mm/min. Stop the extension machine when the string formed between the sealant in the container and the tip breaks and report the length of the string at break (L_{max}). Do not clean the tip.