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Indian Standard

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GLOSSARY OF TERMS FOR SEALANTS FOR BUILDING PURPOSES

(ISO Title : Building Construction — Jointing Products — Sealants — Vocabulary)

Building Construction Practices Sectional Committee, BDC 13 [Ref : Doc : BDC 13 (3956)]

National Foreword

This Indian Standard which is identical with ISO 6927 - 1981 'Building construction — Jointing products — Sealants — Vocabulary', issued by the International Organization for Standardization (ISO), was adopted by the Indian Standards Institution on the recommendation of the Building Construction Practices Sectional Committee and approval of the Civil Engineering Division Council.

Wherever the words 'International Standard' appear, referring to this standard, it should be read as 'Indian Standard'.

Only the English language text in the International Standard has been retained while adopting it in this Indian Standard. Consequently, foot-notes in relation to French version stand deleted.

Adopted 27 June 1984

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0 Introduction

This International Standard does not include all necessary technical terms on jointing products. The given selection has been based on relations with other standards and the need for definitions before specific test methods are elaborated.

Material properties are defined in general terms without reference to related quantitative aspects such as the influence of specitic test conditions, for example, temperature or rate of strain.

1 Scope and field of application

This International Standard defines technical terms for sealants for building purposes and applies to joints filled with hardening, plastic or elastic materials which are not preformed.

2 Terms and definitions

2.1 to seal : To place the appropriate products in the joint in order to prevent the penetration of moisture and/or the passage of air between the elements, components, and assemblies made of the same or dissimilar materials.

2.2 sealant : A material which, applied in an unformed state to a joint, seals it by adhering to appropriate surfaces within the joint.

2.3 elastic sealant : Sealant which after application exhibits predominantly elastic behaviour, i.e, remaining stresses induced in the sealant as a result of joint movement are almost proportional to the strain.

2.4 plastic sealant : A sealant which after application retains predominantly plastic properties, i.e. the remaining stresses induced in the sealant as a result of joint movement are rapidly relieved.

2.5 one component sealant : Sealant ready for use.

2.6 multi-component sealant : Sealant supplied in the form of several separate components to be mixed together before use, in accordance with the manufacturer's instructions.

2.7 Joint movement amplitude

2.7.1 for extension/compression movements : Difference between the maximum and the minimum width of a given joint caused by extension/compression movements.

2.7.2 for shearing movements : Maximum length of the motion, measured in a direction parallel to the sliding, of two points on the faces of the joint which were initially located on a line perpendicular to the axis of the joint.

2.8 movement capability : Quantitative statement of the ability of a sealant to accommodate movement of the joint into which it has been filled, while maintaining an effective seal.

2.9 primer : Surface coating applied to the faces of the joint before placing the sealant in order to ensure its adhesion.

2.10 back-up material : Material inserted in a joint, which limits the depth of sealant applied, and which defines the back profile of the sealant.

2.11 compatibility : For a sealant, the property of remaining in contact with another material without unfavourable physical or chemical interactions.

2.12 cohesion : Property of a sealant subjected to tensile strain to hold together by intermolecular attraction.

2.13 cohesion failure : Rupture in the body of a sealant.

2.14 adhesion : Property of a sealant to stick to a given substrate.

2.15 adhesion failure : Rupture at the interface between a sealant and a substrate.

2.16 elastic recovery : Property of a sealant whereby the initial shape and dimensions of the material are wholly or partially restored on removal of the forces causing deformation.

2.17 slump[1] : Flow of a sealant out of a joint having a vertical surface.

2.18 secant tensile modulus : Ratio between the tensile stress of a sealant at a particular relative elongation and that relative elongation.

1) Also designated "sagging"

2.19 application life : Time after mixing a multi-component sealant (or after opening a sealed container of a one-component sealant) within which the material may be successfully applied to a joint, at a stated temperature.

2.20 tooling[1] : Method used, following application, to force the sealant into a joint in order to ensure contact between the sealant and the interface and to improve the surface appearance.

2.21 open time of the primer : Time after the application of the primer during which the sealant can be successfully applied.

2.22 tack-free time : Time after which a sealant surface looses its tackiness so that dust no longer adheres.

2.23 depth of the sealant : Smallest distance between the surface of the sealant and its back profile.

2.24 cure : Irreversible transformation of a sealant from a liquid or paste-like state into a hardened or rubber-like solid state.

2.25 sealant durability : Probable service life of a sealant during the given conditions of use.

2.26 service life : Period of time during which a sealant fulfills its functions.

In practice, the period between the date of the first application of a sealant to a joint and the date when the product ceases to fulfil its functions.

2.27 storage life : Period following manufacture, during which a sealant stored under defined conditions, may be used and will then maintain its functional characteristics.[2]

1) This term covers two actions which correspond to two different terms in French, "serrage lissage".
2) That is, having properties necessary for satisfactory performance.