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**Adhesives — Determination of shear  
strength of adhesive bonds between rigid  
substrates by the block-shear method**

*Adhésifs — Détermination de la résistance au cisaillement de joints  
collés entre éléments rigides par la méthode de cisaillement entre blocs  
massifs*



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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 13445 was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 11, *Products*.

This second edition cancels and replaces the first edition (ISO 13445:1995), which has been technically revised.

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# Adhesives — Determination of shear strength of adhesive bonds between rigid substrates by the block-shear method

## 1 Scope

This International Standard specifies a method for the determination of the shear strength of adhesives used to bond materials with elastic moduli higher than the elastic modulus of the adhesive. The method provides an estimate of the shear strength of an adhesive on various machinable and non-machinable substrate materials.

## 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 291:1997, *Plastics — Standard atmospheres for conditioning and testing*

ISO 7500-1:—<sup>1)</sup>, *Metallic materials — Verification of static uniaxial testing machines — Part 1: Tension/compression testing machines — Verification and calibration of the force-measuring system*

ISO 10365:1992, *Adhesives — Designation of main failure patterns*

EN 13887:—<sup>2)</sup>, *Structural adhesives — Guidelines for surface preparation of metals and plastics prior to adhesive bonding*

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 3.1

#### shear stress

force applied parallel to a flat adhesive joint, divided by the bond area of the joint

### 3.2

#### shear strength

maximum shear stress sustained by an adhesive joint during a shear test

1) To be published. (Revision of ISO 7500-1:1999)

2) To be published.