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**Adhesives — Determination of the  
bond strength of engineering-plastic  
joints**

*Adhésifs — Détermination de la résistance de joints collés des  
plastiques industriels*

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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

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

This second edition cancels and replaces the first edition (ISO 15509:2001), which has been technically revised. The main changes compared to the previous edition are as follows:

- the list of normative references in [Clause 2](#) has been updated;
- the mandatory terms and definitions clause ([Clause 3](#)) has been inserted.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

## Introduction

Methods of determining the strength of adhesive joints are well known. Several International Standards describe various methods including the lap-shear test or the butt torsion test. However, these methods are either not suitable for the determination of values which can be used for design purposes, or are restricted to metallic substrates. Because the existing International Standards for the measurement of the strength of bonded plastic materials are derived from test methods for metals and are less suitable for plastic materials due to the bending of substrates and varying modulus of elasticity, a new test method and a new test geometry have been developed and are described in this document.

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