

BS 4935 : 1989

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**British Standard Method of specifying
Acrylonitrile-butadiene-styrene (ABS)
moulding and extrusion materials**

Méthodes de spécification des matériaux à mouler et à extruder à base de copolymère
d'acrylonitrile-styrène-butadiène (ABS)

Verfahren zur Festlegung von Akrylnitril/Butadien/Styrol(ABS)-Formmassen für
Spritzgießen und Extrusion

Foreword

This British Standard has been prepared under the direction of the Plastics Standards Committee and is a revision of BS 4935 : 1974, which is withdrawn. It is related to International Standard ISO 2580 'Plastics-Acrylonitrile-butadiene-styrene (ABS) moulding and extrusion materials' Part 1 : 1978 'Designation' and Part 2 : 1982 'Determination of properties', published by the International Organization for Standardization (ISO). The ISO designation system in Part 1 only affords a coarse classification.

In view of the large number of types of material grades now available and their many and varied applications in the UK, it is no longer considered practicable to produce in a single document, a product specification for every available grade for each application. This revision therefore transforms BS 4935 from a product specification into a method of specifying acrylonitrile-butadiene-styrene (ABS) materials. Accordingly, a designation system based on Vicat softening temperature, melt flow rate, Izod or Charpy impact and flexural modulus has been included which can be used to classify a material into one of four ranges of values for each property.

Methods of test, including methods for preparation of test specimens, are also given. It is intended that all the methods of test will be published as BS 2782 methods identical with the corresponding ISO standards. However, at the present time, although method numbers have already been allocated, some BS 2782 methods have not yet been published and, until they have, the corresponding ISO standards should be used.

The properties of ABS materials may be changed by the incorporation of additives such as pigments and antistatic agents. The values quoted for selected properties are related to the material in the form in which it is supplied, for example, the granules may be surface lubricated for injection moulding purposes.

The thermal history of, and the internal stresses generated in, test specimens during preparation can strongly influence the values subsequently determined for thermal and mechanical properties and for resistance to environmental stress cracking but exert less effect on the electrical and optical properties. Any treatment of the test specimens subsequent to preparation, e.g. conditioning or annealing, may also affect the values obtained for certain properties.

NOTE. The test specimens for impact strength testing given in table 2 may be replaced, at the next revision of this standard, by test specimens with the dimensions 80 mm × 10 mm × 4 mm (specimen type 1) as described in BS 2782 : Method 350 and Method 359.

Compliance with a British Standard does not of itself confer immunity from legal obligations.