

**BS EN ISO 18265:2013**



**BSI Standards Publication**

# **Metallic materials — Conversion of hardness values (ISO 18265:2013)**

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## National foreword

This British Standard is the UK implementation of EN ISO 18265:2013. It supersedes BS EN ISO 18265:2003 which is withdrawn.

The UK committee is aware that the common need to convert from one hardness test scale to another has led to the creation of various International Standards (EN ISO 18265:2013, ASTM E140 12b). These standards take measurements from a small number of example materials using different static hardness tests and present a conversion between static hardness scales in the form of comparison tables and graphs of the relevant static hardness test results. However, different materials have different hardness responses and so the comparison tables in these standards are strictly only applicable to the same material as that used to derive the tables. The UK committee is of the opinion that these standards should not be used to provide any conversion from a dynamic indentation test to a different hardness scale, static or dynamic. The recommended method for determining a hardness scale conversion is to generate a set of comparison results for the exact material and scale conversions required.

Using this standard to convert between static hardness scales for test results obtained on materials different from the example materials in the standard will introduce additional and possibly large uncertainties (see clause 1). Even for the same or similar materials the uncertainty is variable. For this reason, all converted hardness values obtained by comparison with the specific conversion tables acquired for the example materials quoted in this document should be treated as estimated or indicative values only. Attention is therefore also drawn to clause 2 which states that "a measurement made according to the correct hardness (or tensile) standard for the scale being reported shall always take precedence over a hardness (or strength) value derived from a conversion table".

The UK participation in its preparation was entrusted by Technical Committee ISE/101, Test methods for metals to Subcommittee ISE/101/5, Indentation hardness testing.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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## Amendments/corrigenda issued since publication

| Date | Text affected |
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