Abstract:

The New Standard for Reliable r-Values to ISO 10113:2020, ASTM E517, JIS Z2254: videoXtens T-160 HP

ZwickRoell GmbH & Co. KG, Katja Müller

The r-value, or more accurately the vertical anisotropy, is one of the typical characteristic values determined from tensile tests in accordance with ISO 10113, ASTM E517 or JIS Z2254. Up until 2020, determination of the r-value to ISO 10113 was based solely on the assumption that a metal material showed no taper within the parallel length, in the range up to uniform extension Ag. In order to achieve more realistic measured values, the r-value is now determined over the entire gauge length, since it then includes the taper of the material.

The presentation covers the changes made to the ISO 10113:2020 standard and the benefits of the new methodology. We will also introduce the new videoXtens T-160 HP. This extensometer measures change in width without making contact with the specimen and meets the requirements of this new methodology. In addition, it provides helpful functions that make the test easier, safer, and more reliable.

The videoXtens not only delivers realistic r-values to ISO 10113:2020, but also precise and highly accurate values.