BS ISO 13145:2023

BSI Standards Publication

Rubber — Determination of viscosity and stress relaxation using a rotorless sealed shear rheometer

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National foreword

This British Standard is the UK implementation of ISO 13145:2023. It supersedes BS ISO 13145:2012, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PRI/22, Testing and analysis of rubber.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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Caoutchouc — Détermination de la viscosité et de la relaxation de contrainte au moyen d'un rhéomètre à cisaillement sans rotor étanche

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Foreword

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This document was prepared by Technical Committee ISO/TC 45, *Rubber and rubber products*, Subcommittee SC 2, *Testing and analysis*.

This second edition cancels and replaces the first edition (ISO 13145:2012), of which it constitutes a minor revision. The changes are as follows:

— the reference ISO 18899 has been updated with the latest edition.

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Introduction

The rheological properties of rubbers are related to their structural characteristics and will influence the behaviour of the rubber during processing and the performance of the final product.

For these reasons, the industrial environment requires instruments that can quickly and easily evaluate the rheological properties.

As a consequence, this standard test method was formulated using a rotorless sealed shear rheometer for rheological evaluation under defined conditions.

This test can be an alternative to the Mooney viscometer, still used as standard in many parts of the rubber industry to measure Mooney viscosity (according to ISO 289-1). The defined conditions have been selected to provide a shear rate range similar to that used for Mooney viscosity and a good repeatability level.

This test procedure is performed over a short time and preferably in the automatic mode to optimize test efficiency.

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