BS ISO 12493:2017

BSI Standards Publication

Rubber, vulcanized — Determination of stress in tension upon heating

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National foreword

This British Standard is the UK implementation of ISO 12493:2017. It supersedes BS ISO 12493:2011, which is withdrawn.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 secretary.

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Caoutchouc vulcanisé — Détermination de la contrainte en traction lors du chauffage

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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 12493:2011), of which it constitutes a minor revision to update the normative references in Clause 2.

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Introduction

Vulcanized rubber held under a constant stress will contract as the test temperature is raised, while a test piece held under a constant strain will develop an increased stress. These are features of the Gough-Joule effect in rubber and, unless they are taken into account at the design stage, any resulting changes in forces and dimensions can affect the performance of some products, such as rotary seals, used at high temperatures and high strains (see Reference [1]).

This document describes a test method for the determination of the change in tensile stress that results from an increase in test temperature.

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