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Plastics — Elasticity index — Determination of elastic property of melts

Plastiques — Indice d'élasticité — Détermination de la propriété élastique à l'état fondu

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Foreword

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Introduction

Many thermoplastic materials show similar viscosities, but elastic properties can vary significantly, which can lead to inappropriate applications.

The definition of an elasticity index describing the elastic properties of resins in a similar way as the viscosity is indicated by the melt flow rate opens a possibility to designate the elastic properties using a simple characteristic number.

Selecting G' at a particular frequency as elasticity index can no longer describe the complete behaviour of materials with varying frequency. But considering the success MFR/MVR (see ISO 1133-1 and ISO 1133-2) as characteristic numbers of viscosity the elasticity index provides a similar useful characteristic number for the elasticity of materials.

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