INTERNATIONAL STANDARD

ISO 20299-2

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Film for wrapping rubber bales —

Part 2: Natural rubber

Emballage des balles en caoutchouc —

Partie 2: Caoutchouc naturel

Reference number
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Foreword

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The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 20299-2 was prepared by Technical Committee ISO/TC 45, *Rubber and rubber products*, Subcommittee SC 3, *Raw materials (including latex) for use in the rubber industry*.

ISO 20299 consists of the following parts, under the general title *Film for wrapping rubber bales*:

— *Part 1: Butadiene rubber (BR) and styrene-butadiene rubber (SBR)*

— *Part 2: Natural rubber*

Introduction

Block natural rubber is prepared by basically comminuting large lumps, washed with plenty of water. It is then dried, baled and packed. The bales are wrapped in clear polyethylene bags and packed into metal or wooden crates.

The prime purpose of the polyethylene bag is to keep the bales separate at all times so that they may be easily removed from their packaging for use. However, because it is difficult and uneconomic to strip the film from each bale, an essential feature is that the film should disperse in the rubber compound during mixing. This means that its melting point has to be lower than the temperatures attained in internal mixing cycles, typically 120 °C to 160 °C.

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WARNING — Persons using this part of ISO 20299 should be familiar with normal laboratory practice. This part of ISO 20299 does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user to establish appropriate safety and health practices and to ensure compliance with any national regulatory conditions.

1 Scope

This part of ISO 20299 specifies the material and physical property requirements for non-strippable high melting point film for wrapping natural-rubber bales, intended to keep the bales separate during storage.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 306:2004, *Plastics — Thermoplastic materials — Determination of Vicat softening temperature (VST)*

ISO 11357-3, *Plastics — Differential scanning calorimetry (DSC) — Part 3: Determination of temperature and enthalpy of melting and crystallization*

3 Material

The film shall be manufactured from low-density polyethylene (polyethene), PE-LD.

NOTE Slip agents, anti-oxidants and anti-blocking agents are normally not included.

4 Physical properties

4.1 Thickness

When measured using a micrometer screw gauge, the film shall have a thickness between 30 μm and 50 μm.

4.2 Thermal properties

4.2.1 General

It is sufficient to satisfy only one of the following two thermal-property requirements.

NOTE The Vicat softening temperature is generally 18 °C lower than the peak melting temperature as measured by DSC.