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# Reclaimed rubber — Coding and classification system

Caoutchouc régénéré — Codage et système et de classification

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#### Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see <a href="https://www.iso.org/directives">www.iso.org/directives</a>).

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This document 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*. https://standards.iteh.av/catalog/standards/sist/33d5511d-0adc-444a-b99c-

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#### Introduction

Reclaimed rubber has many variables. Therefore, it becomes difficult for users to differentiate the quality of reclaimed rubber. This classification system in this document will help users to specify the reclaimed rubber they want to use.

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#### **Reclaimed rubber** — Coding and classification system

#### 1 Scope

This document specifies:

- a coding system of reclaimed natural rubber and reclaimed isobutylene-isoprene (IIR) rubber;
- a numeric system to classify reclaimed rubber.

#### 2 Normative references

There are no normative references in this document.

#### **Terms and definitions** 3

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/ IEW
- ISO Online browsing platform available at http://www.solorg/obp

#### ISO 19846:2017

Classification system Classification system ai/catalog/standards/sist/33d5511d-0adc-444a-b99c-4

The reclaimed rubber shall be classified according to Table 1.

The classification depends on:

- the type of the reclaimed rubber: reclaimed rubber derived from natural rubber or from isobutyleneisoprene rubber (IIR);
- the value of Mooney viscosity, tensile strength, rubber hydrocarbon content and acetone extract, determined according to ISO/TS 16095 or ISO/TS 16096.

Т	ype of rubber		Natural rubber	Isobutylene-isoprene (IIR) rubber				
	Class		1	2				
Mooney viscosity ML(1+4) at 100 °C		Tensile strength		Rub	Rubber hydrocarbon content		Acetone extract	
Code	MV	Code	<b>TS</b> MPa	Cod	e RHC %		Code	<b>AE</b> %
MVA	$MV \le 25$	TA	$TS \ge 12,0$	RH1	<i>RHC</i> > 60	7 [	AE1	$AE \le 12$
MVB	$25,0 < MV \leq 35,0$	TB	$9,0 \leq TS < 12,0$	RH2	$50,0 < RHC \le 60$		AE2	$12 < AE \leq 16,6$
MVC	$35,0 < MV \leq 50,0$	TC	$6,0 \leq TS < 9,0$	RH3	$40,0 < RHC \le 50$		AE3	$16,6 < AE \leq 20,0$
MVD	$50,0 < MV \leq 65,0$	TD	$4,0 \leq TS < 6,0$	RH4	$RHC \le 40$		AE4	<i>AE</i> > 20
MVE	$65,0 < MV \leq 80,0$	TE	TS < 4,0		—	] [		—
MVF	<i>MV</i> > 80,0				—			—

#### Table 1 — Classification system

EXAMPLE 1 A reclaimed rubber derived from natural rubber, with a Mooney viscosity of 42, a tensile strength of 8,0 MPa, a rubber hydrocarbon content of 52 % and an acetone extract of 14 % is designated as follows:

#### 1 MVC TC RH2 AE2

EXAMPLE 2 A reclaimed rubber derived from isobutylene-isoprene (IIR) rubber, with a Mooney viscosity of 34, a tensile strength of 7,5 MPa, a rubber hydrocarbon content of 54 % and an acetone extract of 10 % is designated as follows:

#### (stMYRdfarttsAfteh.ai)

#### **Bibliography**

- [1] ISO/TS 16095, Reclaimed rubber derived from products containing mainly natural rubber Evaluation procedure
- [2] ISO/TS 16096, Reclaimed isobutene-isoprene (IIR) rubber Evaluation procedure

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