### INTERNATIONAL STANDARD

ISO 21561

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# Styrene-butadiene rubber (SBR) — Determination of the microstructure of solution-polymerized SBR

**AMENDMENT 1** 

iTeh ST Caoutchouc styrène-butadiène (SBR) — Détermination de la microstructure du SBR polymérisé en solution

(stamenbemely.iteh.ai)

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Amendment 1 to ISO 21561:2005 was prepared by Technical Committee ISO/TC 45, *Rubber and rubber products*, Subcommittee SC 2, *Testing and analysis*.

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### Styrene-butadiene rubber (SBR) — Determination of the microstructure of solution-polymerized SBR

#### **AMENDMENT 1**

Page 2, Subclause 3.5.4

In the first line, between "solution" and "under", insert "and a solvent blank (deuterated chloroform containing 0,03 % of TMS)".

Page 3, Subclause 3.6.2

Delete the first sentence.

At the beginning of the second sentence, replace "The TMS blank is normalized using Equation (1) and subtracted from" by "Normalize the solvent blank measured in 3.5.4 using Equation (1) and subtract it from".

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Page 7, Table 2

ISO 21561:2005/Amd 1:2010

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Replace the current Table 2 with the following table the other column (wave number) has been deleted and information on the relevant wave number range given in the last column:

Notation for absorbance	Microstructure component	Remarks
$D_{trans}$	1,4-trans bond	Measure the absorbance at the peak maximum from 960 cm <sup>-1</sup> to 980 cm <sup>-1</sup> .
$D_{vinyl}$	1,2-vinyl bond	Measure the absorbance at the peak maximum from 900 cm <sup>-1</sup> to 920 cm <sup>-1</sup> .
$D_{cis}$	1,4-cis bond	The wave number at this peak maximum is affected by the nature of the polymer, such as the styrene content. When the peak maximum is visible, read off the absorbance at the peak maximum from 720 cm <sup>-1</sup> to 740 cm <sup>-1</sup> . If the styrene content is over 30 %, the peak of the 1,4-cis bond is hidden between the two large styrene absorptions at 755 cm <sup>-1</sup> and 699 cm <sup>-1</sup> . In this case, measure the absorbance value at 724 cm <sup>-1</sup> .
$D_{styrene}$	Styrene	Measure the absorbance at the peak maximum from 690 cm <sup>-1</sup> to 710 cm <sup>-1</sup> .

Page 8, Subclause 4.7

Change the subclause heading to "Conversion of the IR method results to absolute results".

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