INTERNATIONAL STANDARD 1434

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Natural rubber in bales — Amount of bale coating — Specification and determination

Caoutchouc naturel en balles — Quantité d'enduit — Spécifications et détermination

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FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up 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.

Draft International Standards adopted by the Technical Committees are circulated to the Member Bodies for approval before their acceptance as International Standards by the ISO Council.

Prior to 1972, the results of the work of the Technical Committees were published as ISO Recommendations; these documents are now in the process of being transformed into International Standards. As part of this process, Technical Committee ISO/TC 45 has reviewed ISO Recommendation R 1434 and found it technically suitable for transformation. International Standard ISO 1434 therefore replaces ISO Recommendation R 1434-1971 to which it is technically identical.

ISO Recommendation R 1434 was approved by the Member Bodies of the following countries :

Australia	Hungary	South Africa, Rep. of
Austria	India	Spain
Brazil	Iran	Sweden
Canada	Ireland	Switzerland
Colombia	Israel	Turkey
Czechoslovakia	Italy	United Kingdom
Egypt, Arab Rep. of	Japan	U.S.A.
France	Korea, Rep. of	U.S.S.R.
Germany	Netherlands	Yugoslavia

No Member Body expressed disapproval of the Recommendation.

No Member Body disapproved the transformation of ISO/R 1434 into an International Standard.

Printed in Switzerland

Natural rubber in bales – Amount of bale coating – Specification and determination

1 SCOPE AND FIELD OF APPLICATION

This International Standard gives the specification and method of test for the amount of bale coating present on the outside wrapper sheets from bales of natural rubber, using an ash procedure.

It also gives a method of test for determining the amount of bale coating on the outside wrapper sheets of all grades of smoked sheet rubbers only, by a brushing or scraping procedure.

NOTE – The brushing or scraping procedure, while much faster, is not suitable for use on crêpe rubbers because of penetration through holes in the outside wrapper sheet and difficulties of removal of the coating from between wrapper sheets. This necessitates the use of the ash procedure on crêpe rubbers.

2 REFERENCES

ISO/R 247, *Determination of ash in raw natural rubber.*

ISO 1795, *Raw rubber in bales – Sampling.*

3 SPECIFICATION

The average amount of bale coating on the bales in the sample shall not exceed 4 g per kilogram of rubber. Lots may be rejected if the bale coating exceeds this amount.

4 SAMPLING

Portions at random from the outside wrapper sheets shall be carefully removed from any three contiguous sides of the bale so as to minimize the loss of bale coating. The sampled portions shall be handled and stored so as to minimize the loss of bale coating. The thickness of the test portions used for the determination using the ash method shall not exceed 5 mm.

The number of bales sampled from a lot shall be in accordance with ISO 1795.

5 PROCEDURE

5.1 Ash method

Die out or cut out two 50 mm × 50 mm test pieces from each of the three portions removed from the bale, taking care not to lose bale coating. Test each piece separately; any bale coating falling from the test piece shall be added to the ash crucible together with the test piece. Determine the ash in accordance with ISO/R 247, but using the mass to the nearest 0,01 g of the 50 mm square test piece instead of that of a 5 to 6 g portion of homogenized rubber.

5.2 Brushing or scraping method

Die out or cut out a test piece exactly 150 mm × 150 mm from each of the three portions removed from the bale, following the precautions given in 5.1. Weigh the test piece to the nearest 0,01 g before and after removal of bale coating. Remove the bale coating using a stiff wire brush or by scraping, taking care not to abrade rubber from the wrapper sheet while removing as much of the bale coating as possible.

6 EXPRESSION OF RESULTS

6.1 Ash method

The amount of bale coating per bale is given, in grams per kilogram of rubber, by the formula :

$$\frac{A_1 \times m_2}{A_2 \times m_1}$$

where

A_1 is the nominal surface area of the bale, in square millimetres;

A_2 is the surface area, in square millimetres, of one test piece;

m_1 is the nominal mass, in kilograms, of the bale;

m_2 is the average mass of ash, in grams, for the six test pieces.

NOTE – The natural ash from the rubber contributes to the ash determined. At a natural ash level of 1 % the contribution is equivalent to 0,7 g per kilogram of rubber for a test piece 5 mm thick, cut from a 110 kg bale.

6.2 Brushing or scraping method

The amount of bale coating per bale is given, in grams per kilogram of rubber, by the formula :

$$\frac{A_1 \times m_3}{A_3 \times m_1}$$

where

A_1 is the nominal surface area of the bale, in square millimetres;

A_3 is the surface area, in square millimetres, of one test piece;

m_1 is the nominal mass, in kilograms, of the bale;

m_3 is the average mass of bale coating, in grams, for the three test pieces, determined from the difference in mass before and after removal of the bale coating.