International Standard 6376

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Carbonaceous materials for the production of aluminium — Pitch for electrodes — Determination of content of toluene-insoluble material

Produits carbonés utilisés pour la production de l'aluminium — Brais pour électrodes — Détermination du taux des matières insolubles dans le toluène

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Foreword

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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.

International Standard ISO 6376 was developed by Technical Committee ISO/TC 47, *Chemistry*, and was circulated to the member bodies in September 1979.

It has been approved by the member bodies of the following countries :

Australia	Hungary	Sweden
Austria	Italy	Switzerland
Belgium	Korea, Rep. of	Thailand
Canada	Libyan Arab Jamahiriya	United Kingdom
China	Philippines	USA
Czechoslovakia	Poland	USSR
Egypt, Arab Rep. of	Portugal	Yugoslavia
France	Romania	
Germany, F. R.	South Africa, Rep of	

The member body of the following country expressed disapproval of the document on technical grounds :

Netherlands

This International Standard was also approved by the International Union of Pure and Applied Chemistry (IUPAC).

Printed in Switzerland

Carbonaceous materials for the production of aluminium — Pitch for electrodes — Determination of content of toluene-insoluble material

1 Scope and field of application

This International Standard specifies a gravimetric method for the determination of the content of toluene-insoluble material in pitch used for the production of aluminium.

NOTE — The content of toluene-insoluble material is commonly called "sum of resins α + β".

2 Reference

ISO 6257, *Carbonaceous materials for the production of aluminium — Pitch for electrodes — Sampling.*

3 Principle

Determination by weighing of the fraction of a test portion of pitch which is insoluble in toluene after boiling for a specified period.

4 Reagents and materials

During the analysis, use only reagents of recognized analytical grade.

4.1 Toluene.

4.2 Acetone.

5 Apparatus

Ordinary laboratory apparatus and

5.1 Conical flask, of capacity 500 ml, of borosilicate glass, fitted with a ground glass socket (see ISO 4797).

5.2 Reflux condenser, effective length 300 mm, having a ground glass cone (see ISO 383) at its lower end, by means of which it can be fitted to the socket of the conical flask (5.1).

5.3 Filter crucible, of glass, of capacity about 30 ml, fitted with a sintered glass disc (see ISO 4793) of porosity grade P16 (pore size index 10 to 16 µm) and having the following approximate principal dimensions :

disc diameter : 30 mm

height (disc to upper rim) : 35 mm.

5.4 Electric oven, capable of being controlled at a temperature between 105 and 110 °C.

6 Sampling

See ISO 6257.

In the case of hard pitches, grind the sample so that it passes through a sieve of nominal aperture size 200 µm (see ISO 565).

In the case of soft pitches, use the sample as received.

7 Procedure

WARNING — Toluene is toxic and highly flammable. Carry out all operations involving its use in an efficiently ventilated fume cupboard.

7.1 Test portion

Weigh, to the nearest 0,001 g, approximately 1 g of the sample (see clause 6).