International Standard

ISO 6791

Carbonaceous materials for the production of aluminium — Pitch for electrodes — Determination of contents of quinoline-insoluble material

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

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Contents

Page

Foreword ..... **iv**
Introduction ..... **v**
1 Scope **1**
2 Normative references **1**
3 Terms and definitions **1**
4 Principle **1**
5 Reagents and materials **1**
6 Apparatus **2**
7 Sample preparation **3**
8 Procedure **4**
8.1 Test portion 4
8.2 Filter preparation 4
8.3 Determination 4
9 Expression of results **5**
9.1 Method of calculation 5
9.2 Precision 5
10 Test report **5**

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Foreword

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This document was prepared by Technical Committee ISO/TC 226, *Materials for the primary production of aluminium*.

This second edition cancels and replaces the first edition (ISO 6791:1981), which has been technically revised.

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The main changes are as follows:

— added analysis procedure details to help run the analysis;

— corrected text to formal SI formatting;

— updated test report description.

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Introduction

In a carbon paste plant, the pitch content needs to be optimized amongst other factors according to the quinoline insoluble content of the pitch. Two types of quinoline insoluble (QI) exist: primary and secondary. Primary QI are formed in the coke oven and are beneficial to the carbon anode quality. Secondary QI (or mesophase) are formed by additional heat treatment of the pitch and are either neutral or harmful to the anode quality. Primary QI material is very dense and leads to high coking values of the pitch. Therefore, a high primary QI pitch has a high binding power. The principle of the method is the extraction of a test portion with quinoline at a defined temperature.

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