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IRISH STANDARD

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ICS 75.160.10

**SOLID RECOVERED FUELS -
DETERMINATION OF POTENTIAL RATE OF
MICROBIAL SELF HEATING USING THE REAL
DYNAMIC RESPIRATION INDEX**

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English Version

**Solid recovered fuels - Determination of potential rate of
microbial self heating using the real dynamic respiration index**

Combustibles solides de récupération - Détermination du
taux d'activité microbienne utilisant l'index de respiration
dynamique

Feste Sekundärbrennstoffe - Bestimmung des potenziellen
Grades der mikrobiellen Selbstererhitzung mittels des
realen dynamischen Respirationsindexes

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Contents	Page
Foreword.....	3
Introduction	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	5
4 Symbols and abbreviations	6
5 Principle.....	6
6 Apparatus	6
7 Procedure	8
8 Calculation of the RDRI results	8
9 Test reports	9
Annex A (informative) RDRI trend.....	11
Annex B (normative) RDRI interpretation	13
Bibliography	14

Foreword

This document (CEN/TS 15590:2007) has been prepared by Technical Committee CEN/TC 343 “Solid Recovered Fuels”, the secretariat of which is held by SFS.

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Introduction

This document specifies the method used for determining the current rate of potential microbial self-heating of SRF using the real dynamic respiration index.

Spontaneous combustion can occur when SRF from municipal solid waste or biomasses are stored and/or transported. The microbial activity, because of aerobic degradation of easily degradable organic matter, acts as a primer causing the waste temperature to increase until autoxidation and the self-combustion processes takes place.

The potential self-heating of SRF can be indirectly measured by the real dynamic respiration index (RDRI), which determines the extent to which easily biodegradable organic matter of a SRF has decomposed. Therefore, the RDRI identifies the actual point reached in the decomposition process and represents a gradation on a recognized scale of values, which thus enables a comparison of potential self-heating.

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