

# **Insulating and sheathing materials of electric and optical cables — Common test methods —**

**Part 4-1: Methods specific to  
polyethylene and polypropylene  
compounds — Resistance to  
environmental stress cracking —  
Measurement of the melt flow index —  
Carbon black and/or mineral filler  
content measurement in polyethylene  
by direct combustion — Measurement of  
carbon black content by  
termogravimetric analysis (TGA) —  
Assessment of carbon black dispersion  
in polyethylene using a microscope**

The European Standard EN 60811-4-1:2004 has the status of a  
British Standard

ICS 29.035.20; 29.060.20

## National foreword

This British Standard is the official English language version of EN 60811-4-1:2004. It is identical with IEC 60811-4-1:2004. It supersedes BS EN 60811-4-1:1995 which is withdrawn.

The UK participation in its preparation was entrusted by Technical Committee GEL/20, Electric cables, to Subcommittee GEL/20/17, Low voltage cables, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

### Cross-references

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### Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 25 and a back cover.

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English version

**Insulating and sheathing materials of electric and optical cables –  
Common test methods**

**Part 4-1: Methods specific to polyethylene and polypropylene compounds - Resistance to environmental stress cracking - Measurement of the melt flow index - Carbon black and/or mineral filler content measurement in polyethylene by direct combustion - Measurement of carbon black content by thermogravimetric analysis (TGA) - Assessment of carbon black dispersion in polyethylene using a microscope**  
(IEC 60811-4-1:2004)

Matériaux d'isolation et de gainage des câbles électriques et optiques - Méthodes d'essais communes Partie 4-1: Méthodes spécifiques pour les mélanges polyéthylène et polypropylène - Résistance aux craquelures sous contraintes dues à l'environnement - Mesure de l'indice de fluidité à chaud - Mesure dans le polyéthylène du taux de noir de carbone et/ou des charges minérales par méthode de combustion directe - Mesure du taux de noir de carbone par analyse thermogravimétrique - Evaluation de la dispersion du noir de carbone dans le polyéthylène au moyen d'un microscope  
(CEI 60811-4-1:2004)

Isolier- und Mantelwerkstoffe für Kabel und isolierte Leitungen - Allgemeine Prüfverfahren Teil 4-1: Besondere Verfahren für Polyethylen- und Polypropylen-Verbindungen - Spannungsrisssbeständigkeit - Messung des Schmelzindexes - Bestimmung des Ruß- und/oder Füllstoffgehaltes in Polyethylen durch direkte Verbrennung - Bestimmung des Rußgehaltes durch thermogravimetrische Analyse (TGA) - Bewertung der Rußverteilung in Polyethylen unter Verwendung eines Mikroskops  
(IEC 60811-4-1:2004)

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European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

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