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Plastics — Soil biodegradable materials for mulch films for use in agriculture and horticulture — Requirements and test methods regarding biodegradation, ecotoxicity and control of constituents

Plastiques — Matériaux biodégradables dans le sol pour les films de paillage pour utilisation en agriculture et horticulture — Exigences et méthodes d'essai concernant la biodégradation, l'écotoxicité et le contrôle des constituants



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Foreword

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This document was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 14, *Environmental aspects*.

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Introduction

Biodegradable mulch films are used worldwide in agriculture and horticulture for many years. They enhance growing conditions and contribute to increased yields and improved crop quality by, for example:

- inhibiting the development of weeds;
- reducing significantly the consumption of water and other resources;
- control of soil temperature;
- reduction in leaching of mineral elements and other fertilizer;
- reduction in soil compaction;
- protecting the crops from soil.

Biodegradable mulch films are not designed to be recovered from soil at the end of the intended service life. Therefore, it is no longer necessary for farmers to retrieve the biodegradable mulch film from the field for disposal or recycling after the harvest. Farmers can simply plow it under along with what remains from the plants so that it is incorporated into soil.

This document defines the standard specification to be met for biodegradable mulch films to be used in agriculture and horticulture. It is suited to characterize both the plastic materials which are used to manufacture mulch films and the mulch films itself with respect to characteristics such as biodegradation, adverse effects on terrestrial organisms and control of constituents.