



MATER-BI

MATER-BI FOR MULCHING

PERFORMANCE
COMPARISON



MATER-BI MULCHING

MATER-BI is a family of fully **biodegradable and compostable** bioplastics which use renewable resources to provide a solution with low environmental impact and to solve specific environmental problems in various sectors, such as agriculture, foodservice, packaging and the separate collection of organic waste.

MATER-BI mulch film is chosen by farmers for its excellent performance in the field combined with high environmental compatibility on account of its certified soil biodegradability. Our materials have obtained compostability certification in accordance with UNI EN 13432: 2002 (*Requirements for packaging recoverable through composting and biodegradation - Test scheme and evaluation criteria for the final acceptance of packaging*), and comply with the requirements set out in standard EN 17033 on the main characteristics in terms of biodegradation in soil, absence of phytotoxic effects and characteristics of use (*Plastics - Biodegradable mulch films for use in agriculture and horticulture - Requirements and test methods*).

COMPARISON OF THICKNESSES AND WEIGHTS: FURTHER DEVELOPMENT OF MATER-BI

Comparison with traditional film

Traditional plastic films (LDPE) are generally used in European countries with thicknesses ranging from a minimum of 20

to a maximum of 40 microns, while biodegradable films have thicknesses from 18 to 12 microns for the main horticultural applications.

This means that, despite the **lower density** of LDPE, in most

cases more linear metres can be developed with **MATER-BI film with the same roll weight**, since it is not as thick.

MATERIAL	DENSITY (g/cm ²)	THICKNESS (µm)	WEIGHT (g/m ²)	Metres/Kg
MATER-BI	1,27	15	19,05	52,5
Product A	1,37		20,55	48,7
Traditional product	0,9	25	22,5	44,4
Traditional product	0,9	30	27	37,0
Traditional product	0,9	40	36	27,8
MATER-BI	1,27	12	15,24	65,6
Product A	1,37		16,44	60,8
Traditional product	0,9	25	22,5	44,4
Traditional product	0,9	30	27	37,0
Traditional product	0,9	40	36	27,8

Comparison with other biodegradable films

MATER-BI has a **lower density** (g/m²) than most competitive

products on the agricultural market. This essentially means that MATER-BI mulch film develops more linear meters per kg of

film with the same roll thickness and weight.

MATERIAL	DENSITY (g/cm ²)	THICKNESS (µm)	ROLL WEIGHT (kg)	METRES/ROLL
MATER-BI	1,27	15	50	2625
Product A	1,37	15		2433
Traditional product	0,9	25		2222
MATER-BI	1,27	15	50	2625
Product A	1,37	15		2433
Traditional product	0,9	30		1852
MATER-BI	1,27	15	50	2625
Product A	1,37	15		2433
Traditional product	0,9	40		1389
MATER-BI	1,27	12	50	3281
Product A	1,37	12		3041
Traditional product	0,9	25		2222
MATER-BI	1,27	12	50	3281
Product A	1,37	12		3041
Traditional product	0,9	30		1852
MATER-BI	1,27	12	50	3281
Product A	1,37	12		3041
Traditional product	0,9	40		1389

NOTE: Oxo-degradable films (with LDPE additive) are used in thicknesses of less than 20 microns but they cannot be left on the ground since they are not certified as compostable and biodegradable in soil in accordance with the regulations in force (EN13432 and EN17033).

Find out more about MATER-BI for mulching: www.materbi.com



Printed on recycled paper FSC® certified, which identifies products containing wood from forests managed correctly and responsibly according to strict environmental, social and economic standards.

