DIN EN 13655:2025-11 (E)

Plastics - Thermoplastic mulch films recoverable after use, for use in agriculture and horticulture

Contents

Page

European foreword 4

1 Scope 5

2 Normative references 5

3 Terms and definitions 6

4 Types and use 8

5 Materials 8

6 Durability 9

7 Requirements 9
7.1 General requirements 9
7.2 Requirement for appearance 14

8 Test methods 14
8.1 Thickness 14
8.2 Width 14
8.3 Film length 14
8.4 Tensile characteristics 15
8.5 Impact resistance 15
8.5.1 General 15
8.5.2 Flat area 15
8.5.3 Fold area 15
8.6 Total luminous transmittance (transparent films) 16
8.7 Solar radiation in PAR and NIR region 16
8.7.1 Principle 16
8.7.2 Apparatus 16
8.7.3 Procedure 17
8.7.4 Expression of results 17
8.8 Solar reflectance 17
8.9 Relative light transmission 17
8.10 Resistance to artificial weathering 17
8.10.1 Principle 17
8.10.2 Exposure to xenon-arc lamps 17
8.10.3 Procedure 18
8.10.4 Calculation and expression of results 18

9 Roll acceptance, storage and handling 18
9.1 Delivery checking 18
9.2 Storage and handling of rolls 18

10 Designation 18

11 Marking 19
11.1 Generalities 19
11.2 Marking of the film 19
11.3 Marking on the packaging or label 20

12 Instructions for storage, installation and use of mulch films 20

13 Design for mechanical recycling and end of life of mulch films 21

14 Removal and collection instructions of used mulch films 22

15 Functions and factors of degradability of mulch films 22

Annex A (informative) Exposure to other light sources 23

Annex B (informative) Numerical correlation between durations of mulching films exposed to artificial weathering and natural exposure 27

Annex C (normative) Determination of solar reflectance 30

Annex D (normative) Determination of the relative light transmission 32

Annex E (informative) Guidance main functions of mulch films factors influencing degradability 33

Bibliography 34