

DIN EN 14932:2018-03 (E)

Plastics - Thermoplastic stretch films for wrapping silage bales

Contents		Page
European foreword		5
Introduction		6
1	Scope	7
2	Normative references	7
3	Terms and definitions	8
4	Materials	9
5	Solar reflectance	9
6	Durability	9
7	Requirements	10
7.1	General requirements	10
7.2	Requirement for visual inspection	11
7.3	Optional characteristics	11
7.3.1	Airtightness and oxygen permeability determined on a wrapped artificial bale	11
7.3.2	Adhesion	11
8	Test methods	12
8.1	Determination of film thickness	12
8.1.1	Determination of single point thickness	12
8.1.2	Determination of average thickness	12
8.2	Determination of width	12
8.3	Determination of core protrusion	12
8.4	Determination of film length	12
8.5	Determination of neck-in during film stretching	13
8.6	Determination of tensile characteristics	13
8.7	Determination of impact resistance	14
8.8	Determination of the tightening force	14
8.9	Determination of the tear resistance	14
8.10	Determination of total luminous transmittance	14
8.11	Determination of resistance to weathering	14
8.11.1	Principle	14
8.11.2	Exposure to xenon-arc lamps	14
8.11.3	Procedure	14
8.11.4	Calculation and expression of results	15
8.12	Determination of oxygen transmission rate	15
9	Film acceptance	15
10	Designation	15
11	Marking of packaging	16
12	Instructions for use of stretch films	16
13	Instructions for disposal of stretch films and end-of-life	16

Annex A (informative) Exposure to other light sources	17
A.1 Medium pressure mercury vapour lamps	17
A.2 Fluorescent UV lamps	18
Annex B (informative) Numerical correlation between durations of stretch forage films exposed to artificial weathering and a natural exposure	20
B.1 Exposure to xenon-arc lamps	20
B.2 Exposure to medium pressure mercury vapour lamps	20
B.3 Exposure to fluorescent UV lamps	21
Annex C (normative) Determination of solar reflectance	22
C.1 General	22
C.2 Principle	23
C.3 Terms and definitions	23
C.4 Apparatus	23
C.5 Test specimens	24
C.6 Procedure	24
C.7 Calculation of the solar reflectance R_s	24
Annex D (normative) Determination of neck-in during stretching	25
D.1 Introduction	25
D.2 Principle	25
D.3 Apparatus	25
D.4 Atmosphere for conditioning and testing	26
D.5 Procedure	26
Annex E (normative) Determination of tightening force	27
E.1 Principle	27
E.2 Apparatus	27
E.3 Procedure	27
E.4 Preparation of the specimens	27
E.5 Results	27
Annex F (informative) Determination of oxygen permeability and airtightness on an artificial bale ..	29
F.1 General	29
F.2 Principle	29
F.3 Apparatus	29
F.4 Films	31
F.5 Conditioning of the film	31
F.6 Procedure	32
Annex G (informative) Determination of adhesion characteristic	35
G.1 Principle	35
G.2 Apparatus	35
G.3 Preparation of the apparatus	35
G.4 Procedure	38
G.5 Report	39
Annex H (informative) Guidance for use and disposal of stretch films	40
H.1 Instructions for storage of rolls	40
H.2 Instructions for baling	40
H.3 Instruction for wrapping	40
H.4 Instruction for storage of wrapped bales	41

H.5 Instruction for disposal of films41
Bibliography43