ASAE S553 DEC2000 (R2017)
Collapsible Emitting Hose (Drip Tape) — Specifications and Performance Testing

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Developed by the ASAE Microirrigation Committee; approved by the Soil and Water Division Standards Committee; adopted by ASAE December 2000; approved as an American National Standard March 2001; reaffirmation extended two years February 2006; reaffirmed by ASABE and ANSI February 2008; reaffirmed by ASABE December 2012, withdrawn as an ANSI March 2013, reaffirmed ASABE November 2017.

Keywords: Collapsible, Drip, Emitter, Irrigation, Microirrigation

1 Purpose and scope

1.1 This Standard specifies testing methods, performance requirements, and data to be supplied by the manufacturer for collapsible emitting hose products with discrete emission points and their lengths, commonly referred to as “drip tape,” and herein referred to as “collapsible emitting hose.”

1.2 This Standard applies to collapsible emitting hose intended for irrigation of which the emitters form an integral or permanently attached part. It does not apply to tubing which is porous along its entire length.

1.3 This Standard applies to specifications and performance testing for newly manufactured collapsible emitting hose products.

1.4 While it is recognized that resistance to emitter plugging is an important consideration in the selection and comparison of collapsible emitting hose products, emitter plugging is not covered in this standard because a repeatable test representative of the variety of field conditions encountered in typical applications is not available.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Standards organizations maintain registers of currently valid standards.

ASAE EP405.1 DEC99, Design and Installation of Microirrigation Systems

ASAE EP458 DEC99, Field Evaluation of Microirrigation Systems

ASAE S526.1 MAR95, Soil and Water Terminology

ASTM D638, Standard Test Method for Tensile Properties of Plastics

ASTM D1603, Standard Test Method for Carbon Black in Olefin Plastics

ASTM D1693, Standard Test Method for Environmental Stress-Cracking of Ethylene Plastics

ASTM D3895, Standard Test Method for Oxidative-Induction Time of Polyolefins by Differential Scanning Calorimetry

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