DIN EN ISO 12782-4:2012-09 (E)

Soil quality - Parameters for geochemical modelling o f leaching and speciation of constituents in soils and materials - Part 4: Extraction of humic substances from solid samples (ISO 12782-4:2012)

Contents

Page

Foreword 3

Introduction 4

1 Scope 6

2 Normative references 6

3 Terms and definitions 7

4 Principle 8

5 Apparatus 8

6 Reagents 9

7 Sample pretreatment 10
7.1 Sample size 10
7.2 Particle size reduction 10
7.3 Determination of dry residue 11
7.4 Test portion 11

8 Procedure 11
8.1 Preparation of DAX-8 resin 11
8.2 Determination of total humic acid (HA), fulvic acid (FA) and hydrophilic organic carbon (Hy) content in solid source materials 12

9 Eluate treatment and storage 12

10 Analytical determination 12

11 Blank test 12

12 Calculation 13
12.1 General correction factors for the calculation of humic acid (HA), fulvic acid (FA), hydrophilic organic carbon (Hy) and hydrophobic neutral organic carbon (HON) in liquid and solid samples 13
12.2 Concentration of total humic acid (HA), fulvic acid (FA), hydrophilic organic carbon (Hy) and hydrophobic neutral organic carbon (HON) concentrations in solid samples 14

13 Expression of results 16

14 Test report 16

15 Performance characteristics 16

Annex A (informative) Schematic representation of the fractionation procedure 17

Annex B (informative) Validation of procedure 19

Annex C (informative) Conditions regarding centrifugation 24

Bibliography 27