# DIN EN 15885:2011-03 (E)

## Classification and characteristics of techniques for renovation and repair of drains and sewers

## Contents

Page


Foreword ..... 3

1 Scope ..... 4

2 Normative references ..... 4

3 Terms and definitions ..... 4

4 Symbols and abbreviations ..... 7

5 Classification of renovation techniques for drains and sewers ..... 8
5.1 General ..... 8
5.2 Lining with continuous pipes ..... 9
5.3 Lining with close-fit pipes ..... 10
5.4 Lining with cured-in-place pipes ..... 12
5.5 Lining with discrete pipes ..... 14
5.6 Lining with spirally-wound pipes ..... 16
5.7 Lining with a rigidly anchored inner plastics layer ..... 19
5.8 Lining with pipe segments ..... 20
5.9 Lining with sprayed material ..... 21

6 Classification of repair techniques for drains and sewers ..... 23
6.1 General ..... 23
6.2 Repair by injection ..... 24
6.3 Repair with cured-in-place components ..... 27
6.4 Repair with trowelled material ..... 29
6.5 Repair with internal mechanical devices ..... 31
6.6 Repair by flood grouting ..... 32

7 Classification of performance characteristics for renovation and repair ..... 34
7.1 General ..... 34
7.2 Structural integrity ..... 35
7.2.1 External loads capacity ..... 35
7.2.2 Internal loads capacity ..... 35
7.3 Impacts on site ..... 35
7.4 Technique requirement for man entry ..... 36
7.5 Technique requirement for shape ..... 36
7.6 Hydraulic performance ..... 36

8 Performance levels for renovation and repair ..... 36

Annex A (informative) Place of this European Standard in the context of the overall design of renovation and repair of drains and sewers ..... 38

Bibliography ..... 39