ISO/TR 10465-2:2007-09 (E)

Underground installation of flexible glass-reinforced pipes based on unsaturated polyester resin (GRP-UP) - Part 2: Comparison of static calculation methods

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Normative references 1

3 Symbols and abbreviated terms 1

4 Soil-load distribution 10

5 Soil load 10
5.1 General 10
5.2 Initial loadings 10
5.3 Long-term loading 15

6 Traffic loads 15
6.1 General 15
6.2 AWWA procedure 16
6.3 ATV procedure 18

7 Deflections 20
7.1 Resulting from vertical load 20
7.2 Aspects not covered by AWWA or ATV 26
7.3 Irregularities in the installation 26

8 Circumferential bending strain 27
8.1 AWWA procedure 27
8.2 ATV procedure 27

9 Buckling 29
9.1 General 29
9.2 AWWA procedure 29
9.3 ATV procedure 31

10 Internal-pressure effects 34
10.1 General 34
10.2 Pressure strain 34
10.3 Combined loading 34
10.4 Calculations based on stress 35

Bibliography 36