ISO/TR 4340:2022-06 (E)

Water aggressiveness evaluation and optimized lining choice

Contents

Page

Foreword ..... **iv**

1 Scope **1**

2 Normative references **1**

3 Terms and definitions **1**

4 Water aggressiveness evaluation **2**
4.1 Normal internal corrosion mechanics 2
4.2 Internal protection of ductile iron pipe 2
4.3 Water aggressiveness evaluation for ductile iron pipe system 3
4.4 Main corrosive aggressive factors 3
4.5 Water evaluation indicators and their trigger value 4
4.5.1 Langelier saturation index (LSI) 5
4.5.2 Ryznar stability index (RSI) 5
4.5.3 Calcium carbonate precipitation potential (CCPP) 5
4.5.4 Larson ratio (LR) 6
4.5.5 Aggressive index (AI) 6
4.5.6 Evaluation chart 6

5 Sampling and testing **7**
5.1 Sampling 7
5.2 Testing 8

6 Optimized lining choice based on water evaluation **8**

7 Steps for water aggressiveness evaluation and optimized lining choice **8**

Annex A (informative) **pH_s** **9**

Annex B (informative) **Relevant test standards** **12**

Annex C (informative) **Type and characteristics of water-related concrete corrosion** **18**

Bibliography **19**