

# ISO 24131-2:2023-03 (E)

## Internal protection by polymeric lining for ductile iron pipes - Requirements and test methods - Part 2: Epoxy lining

---

Contents	Page
Foreword .....	iv
Introduction .....	v
1 Scope .....	1
2 Normative references .....	1
3 Terms and definitions .....	1
4 Technical requirements .....	3
4.1 General .....	3
4.2 Surface preparation .....	3
4.3 Lining appearance .....	4
4.4 Minimum lining thickness .....	4
4.5 Adhesion (pull off test/cross cut knife test) .....	4
4.6 Cross linkage (MIBK/Tg) .....	4
4.7 Non-porosity .....	4
4.8 Protection of pipe ends .....	4
4.9 Marking .....	5
4.10 Repairs .....	5
5 Performance requirements .....	5
5.1 General .....	5
5.2 Materials in contact with water intended for human consumption .....	5
5.3 Abrasion resistance only for sewage applications .....	5
5.4 Chemical resistance only for sewage applications .....	6
5.5 Impact resistance .....	6
5.6 Indirect impact resistance .....	6
5.7 Resistance to hot water .....	6
5.8 Resistance to ovalization .....	6
6 Test methods .....	6
6.1 Routine tests .....	6
6.1.1 Surface preparation .....	6
6.1.2 Lining appearance .....	6
6.1.3 Lining thickness .....	7
6.1.4 Adhesion .....	7
6.1.5 Cross linkage (MIBK/Tg) .....	7
6.1.6 Non-porosity .....	7
6.1.7 Marking .....	7
6.1.8 Repairs .....	7
6.2 Performance test .....	8
6.2.1 Abrasion resistance only for sewage applications .....	8
6.2.2 Chemical resistance only for sewage applications .....	8
6.2.3 Impact resistance .....	8
6.2.4 Indirect impact resistance .....	8
6.2.5 Resistance to hot water .....	8
6.2.6 Resistance to ovalization .....	8
Annex A (normative) Quality assurance .....	10
Annex B (normative) Cross cut knife test method .....	12
Annex C (informative) Handling, transportation and storage .....	13
Bibliography .....	14