

ISO 21138-2:2007-10 (E)

Plastics piping systems for non-pressure underground drainage and sewerage -
Structured-wall piping systems of unplasticized poly(vinyl chloride) (PVC-U),
polypropylene (PP) and polyethylene (PE) - Part 2: Pipes and fittings with smooth
external surface, Type A

| Contents | | Page |
|---|--|-------------|
| Foreword | | iv |
| Introduction | | v |
| 1 | Scope | 1 |
| 2 | Normative references | 1 |
| 3 | Terms, definitions, symbols and abbreviated terms | 3 |
| 3.1 | Terms and definitions | 3 |
| 3.2 | Symbols | 4 |
| 3.3 | Abbreviated terms | 4 |
| 4 | Material | 5 |
| 4.1 | General | 5 |
| 4.2 | Unplasticized poly(vinyl chloride) (PVC-U) | 5 |
| 4.3 | Polypropylene (PP) | 6 |
| 4.4 | Polyethylene (PE) | 8 |
| 5 | Designation of wall construction and examples of typical jointing methods | 10 |
| 5.1 | Wall constructions designated as Type A | 10 |
| 5.2 | Designation and design of joints | 12 |
| 6 | General characteristics for pipes and fittings -- Colour | 12 |
| 7 | Geometrical characteristics | 12 |
| 7.1 | General | 12 |
| 7.2 | Dimensions | 12 |
| 7.3 | Types of fitting | 17 |
| 8 | Physical characteristics | 17 |
| 8.1 | Unplasticized poly(vinyl chloride) (PVC-U) | 17 |
| 8.2 | Polypropylene (PP) | 19 |
| 8.3 | Polyethylene (PE) | 19 |
| 9 | Mechanical characteristics | 20 |
| 9.1 | Mechanical characteristics of pipes | 20 |
| 9.2 | Mechanical characteristics of fittings | 23 |
| 10 | Performance requirements | 23 |
| 11 | Marking | 25 |
| 11.1 | General | 25 |
| 11.2 | Minimum required marking | 25 |
| Annex A (normative) Virgin PVC-U material | | 27 |
| Annex B (normative) Utilization of non-virgin PVC-U material | | 28 |

| | |
|--|-----------|
| Annex C (normative) Virgin PP material | 31 |
| Annex D (normative) Utilisation of non-virgin PP material | 32 |
| Annex E (normative) Virgin PE material | 35 |
| Annex F (normative) Utilization of non-virgin PE material | 36 |
| Annex G (informative) Survey of possible use of reprocessable and recyclable material | 40 |
| Bibliography | 41 |