

ISO 12856-1:2014-03 (E)

Plastics - Plastic railway sleepers for railway applications (railroad ties) - Part 1: Material characteristics

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Characteristics	2
3.1 Material identification	2
3.2 Chemical resistance	2
3.3 Physical, mechanical, and electrical characteristics	2
3.4 Weathering resistance	3
4 Test methods	3
4.1 General	3
4.2 Bending strength and flexural modulus	4
4.3 Longitudinal compressive strength	4
4.4 Lateral compressive strength	4
4.5 Shear strength	5
4.6 Adhesive shear strength	7
4.7 Alternating-current breakdown voltage	9
4.8 Direct-current insulation resistance	11
4.9 Water absorption	14
4.10 Mass density	14
4.11 Linear expansion coefficient	14
4.12 Flame resistance	15
4.13 Weathering resistance	15
4.14 Sleeper dimensions	17
5 Inspection	18
Annex A (normative) Methodology for assessing material ageing	19
Annex B (informative) Examples of typical sleepers	26
Bibliography	29