

ISO 22762-1 :2005-07 (E)

Elastomeric seismic-protection isolators_ - Part_1: Test methods

Contents

Page

Foreword.....	iv
Introduction	v
1 Scope.....	1
2 Normative references	1
3 Terms and definitions.....	2
4 Symbols and abbreviated terms.....	4
5 Rubber material tests	10
5.1 Test items.....	10
5.2 Test conditions and test pieces	10
5.3 Tensile properties	10
5.4 Ageing test.....	11
5.5 Hardness	11
5.6 Adhesion.....	11
5.7 Compression set	11
5.8 Dynamic shear properties	11
5.9 Fracture properties	14
5.10 Brittleness point.....	14
5.11 Ozone resistance	14
5.12 Low temperature crystallization	14
6 Isolator tests	15
6.1 General	15
6.2 Compression and shear stiffness tests.....	15
6.3 Various dependence tests.....	26
6.4 Ultimate shear properties.....	39
6.5 Tensile testing	41
6.6 Durability testing.....	44
6.7 Reaction force due to low-rate deformation.....	51
Annex A (normative) Determination of accelerated ageing conditions equivalent to expected life at 23 °C	54
Annex B (normative) Inertia force correction	57
Annex C (normative) Friction force correction.....	59
Annex D (normative) Determination of coefficient of linear thermal expansion	62
Annex E (informative) Confirmation list	64
Annex F (informative) Alternative methods of determining shear properties.....	66
Annex G (informative) Creep test.....	68
Annex H (informative) Determination of reaction force due to low-rate deformation	70
Annex I (informative) Durability investigation of elastomeric isolators used for 10 years in a bridge	72
Annex J (informative) Durability investigation of elastomeric isolators used for 7 years in a building	74
Bibliography	78