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Materials; 2.2.3 Product Properties and Demands; 2.2.4 Testing and Reduction Factors; 2.2.4.1 General Recommendations; 2.2.4.2 Product Identification (DIN EN ISO 10320); 2.2.4.3 Mass Per Unit Area (DIN EN ISO 9864); 2.2.4.4 Short-term Load-Extenson Behaviour 2.2.4.4.1 Tensile Strength and Strain (DIN EN ISO 10319)2.2.4.4.2 Axial Stiffness; 2.2.4.4.3 Uniaxial and Biaxial Reinforcement; 2.2.4.4.4 Serviceability Limit State/Strain Behaviour; 2.2.4.5 Long-term Load-Extension Behaviour (Creep Rupture, Creep); 2.2.4.5.1 General Recommendations; 2.2.4.5.2 Determining Reduction Factor A1 from Creep Testing; 2.2.4.5.3 Reduction Factor A1 for Creep Failure Behaviour; 2.2.4.5.4 Identifying Long-term Strain Behaviour by Evaluating Isochrones; 2.2.4.6 Resistance to Mechanical Damage During Installation 2.2.4.6.1 General Recommendations 2.2.4.6.1 General Recommendations2.2.4.6.2 Reduction Factor A2 for Damage to Geosynthetics During Transportation, Installation and Compaction; 2.2.4.6.3 In-situ Testing; 2.2.4.6.4 Laboratory Testing (DIN EN ISO 10722); 2.2.4.7 Joins and Connections; 2.2.4.7.1 General Recommendations; 2.2.4.7.2 Reduction Factor A3 for Junctions, Joins, Seams and Connections to Other Structural Elements; 2.2.4.7.3 Determining the Reduction Factor A3 by Testing; 2.2.4.8 Chemical Resistance; 2.2.4.8.1 Reduction Factor A4 for Environmental Chemical Impacts; 2.2.4.8.2 Determining Chemical Resistance by Testing 2.2.4.9 Additional Environmental Impacts2.2.4.9.1 Microbiological Resistance; 2.2.4.9.2 Biological Resistance and Vandalism; 2.2.4.9.3 Weathering Resistance (UV Resistance); 2.2.4.10 Effects of Predominantly Dynamic Actions; 2.2.4.10.1 Reduction Factor A5 for Predominantly Dynamic Actions; 2.2.4.10.2 Determining the Reduction Factor A5 for Predominantly Dynamic Actions by Testing; 2.2.4.11 Friction and Composite Behaviour; 2.2.4.11.1 General Recommendations; 2.2.4.11.2 Determining Composite Coefficients by Testing; 2.3 Bibliography; 3 Analysis Principles; 3.1 General Principles 3.2 Allocation of Geosynthetic-reinforced Structures to Geotechnical Categories

Sommario/riassunto

The completely revised and extended Recommendations deal with all questions relevant to the planning and dimensioning of geosynthetics-reinforced earth structures. In addition to the demands on materials and analysis principles, the applications of geosynthetics in a range of foundation systems, ground improvement measures, highways engineering projects, in slopes and retaining structures, and in landfill engineering are discussed.The Recommendations have been supplemented by the following sections:- reinforced earth structures over point or linear bearing elements,- foundation