Long-Term Strength of Geogrids: Assessment of Reduction Factors to ISO TR 20432

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Geogrids subject to various sources of degradation during their installation & service life

For safe design, need for use of reduction/safety factors

ISO TR 20432 gives guidance on which reduction factors to use & which tests to perform to obtain them

**CREEP**
Combination of conventional creep tests (ISO 13431) and accelerated SIM test (ASTM D 6992)
Reduction of strength of … % after … years

**INSTALLATION DAMAGE**
Full scale test (BS 8006 Annex D)
RF
(for specific soil & level of compaction)
Equivalent to $f_{\text{m2f}}$ of BS 8006

**CHEMICAL DEGRADATION**
Hydrolysis (EN 12447)
Oxidation (ISO 13438)
Resistance to Acids / alkali (EN 14030)

**WEATHERING**
Accelerated test (EN 12224)
RF
+ Recommendations on maximum exposure time

Equivalent to $f_{\text{m2f}}$ of BS 8006