



Neoloy based PRS-Neoweb geocells VS HDPE geocells

- Higher tensile strength – up to 3.5 kN/m
- Higher flexural storage modulus – 3-10x higher plastic deformation (creep) resistance
- 3 to 5x higher dimensionally stable in a much wider temperature range
- Significantly more resistant to stress-cracking
- Very high resistance to elevated temperatures up to 70°C
- 10x more resistant to oxidation and UV degradation over time

Benefits of PRS-Neoweb over HDPE Geocells

Recent research has broadened our understanding of geocells and the reinforcement mechanisms. The results prove that not all geocells are equal – a key to performance is the elastic modulus of the geocell.

Geocells manufactured from HDPE have relatively low tensile strength, high creep and low dimensional stability. This renders HDPE geocells unsuitable for long term applications, particularly when subject to heavy duty cyclical loading and elevated temperatures.

PRS-Neoweb™ geocells however – based on Neoloy novel polymeric alloys – maintain their engineering properties over time, under heavy loading and under high temperatures. This has been confirmed by numerous plate-load tests, numerical modeling and full scale trafficking tests (see Neoweb Published Research). PRS-Neoweb has demonstrated greater improvement in stiffness, bearing capacity, stress distribution and reduced deformation, when compared with conventional HDPE geocells. The high modulus and tensile strength of PRS-Neoweb make it the most suitable geocell for long-term use in motorways, railways and earth retention.