## Product selector grass protection

Selecting the right product for your project will be determined by several factors, the type of loading expected, the frequency of use and the strength of the in situ soils. When assessing the loading frequency note that the entrances, exits and any access roads undergo significantly increased loading frequency compared to the parking bays, if in doubt please speak to Groundstores.

| LOADING FREQUENCY PEDESTRIAN |                                       | CRITERIA  | TENAX PRODUCT               |
|------------------------------|---------------------------------------|---|-----------------------------|
| Emergency access             | SINGLE USE                            | Single day use, no more than once a year  | CBR 4 + GS 1000             |
| Low footfall occasional use  | 20 DAYS MAX                           | Low footfall traffic single day used no more than 20 days per year*   | CBR 6 + G <sup>5</sup> 1000 |
| High footfall occasional use | د د د د د د د د د د د د د د د د د د د | High footfall traffic single day use no more than 20 days per year*   | CBR 6 + G <sup>s</sup> 1400 |
| Intensive occasional use     |                                       | High footfall traffic used for up to 7 consecutive days<br>once a year or for use up to two consecutive days<br>on a weekly basis | CBR 6 + G <sup>s</sup> 1400 |
| Permanent use                | PERMANENT USAGE                       | Medium footfall traffic used on a daily basis   | CBR 6 + G <sup>5</sup> 1800 |

## PEDESTRIAN & WHEELCHAIR USE

\* At least 5 days should be provided between loading cycles

| LOADING FREQUENCY VEHICULAR              |             | CRITERIA  | TENAX PRODUCT               |
|--|-------------|---|-----------------------------|
| Emergency access                         |             | Single day use, no more than once a year  | CBR 4 + GS 1400             |
| Low number occasional use                | 20 DAYS MAX | Single day use 100 vehicle movements per day<br>no more than 20 days per year*  | CBR 6 + GS 1400             |
| High number occasional use               |             | Single use 1000 vehicle movements per day no more than 20 days per year*  | CBR 8 + GS 1800             |
| Intensively trafficked<br>occasional use |             | 500 vehicle movements per day for up to<br>7 consecutive days twice per year** or up to<br>2 consecutive days on a weekly basis | CBR 8 + G <sup>5</sup> 1800 |
|  | 5 6         |   |                             |

🚗 CARS & 4X4's 🛛 🚑 LIGHT COMMERCIAL VANS, CARAVANS, BOATS 🚛 HGVs & FIRE TRUCK ACCESS

\* At least 8 days should be provided between loading cycles between April –October \*\* At Least 30 Days should be provided between loading cycles between April –October

CBR is the Californian Bearing Ratio test usually performed by an engineer to determine the strength of the ground. To assist in this determination, the table below shows field observation details, given in BS 5930, to help determine the expected strengths of the in situ soils. Please note that the figures given refer to the underlying soil below the root zone and not the top soil.

| SOIL STRENGTH DESCRIPTION | IN SITU MANUAL TEST                 | ESTIMATED SHEAR STRENGTH (kN/m <sup>2</sup> ) | EQUIVALENT CBR(%) |
|---------------------------|-------------------------------------|---|-------------------|
| VERY SOFT                 | Finger easily pushed in up to 25mm. | 0-20  | <1                |
| SOFT                      | Finger pushed in up to 10mm.        | 20-40   | 1 - 1.5           |
| FIRM                      | Thumb makes impression easily.      | 40-75   | 1.5 - 6           |
| STIFF                     | Can be indented slightly by thumb   | 75-150  | 3 - 6             |
| VERY STIFF                | Can only be scratched by thumbnail  | 150-300                                       | 12 - 6            |

As an added complication, the drainage characteristic of the existing soils can exert as great an influence as the underlying soils. Groundstores recommend that the drainage of the soils be considered from the outset. Where porous pavers are to be used, a sub base will need to be installed before the placement of the pavers in order to reinforce the ground and help with the drainage. The graphs below give an indication of the depth of sub base required relating to the strength (CBR) of the existing ground.



The above information is given in good faith and as a guide only, in all cases, Groundstores advises that the services of a qualified geotechnical engineer, with the relevant experience, be sought before work commences.