

Naylor TechTurf

Mesh element mixing procedure using wheeled loaders (5.45g/m³ rate)

- 1) TechTurf rootzone is created by blending TechTurf mesh elements with the specified rootzone material using a wheeled loader.
- 2) The rootzone material should be moist to promote cohesion and mixing. However, mixing should not take place during rainfall or with excessive water present as this will adversely affect the properties of the mix.
- 3) TechTurf mesh elements are supplied in 20kg bales formed from layers of elements rolled between polythene film on a tubular cardboard core. The mesh elements are manufactured in a BS EN ISO 9002 certified environment. QC batch labels are placed inside the core. (This should be recorded if any quality related problems arise.) The bales are protected by a polythene sleeve which means they can be stored outside.
- 4) Calibrate the capacity of the bucket on the wheeled loader.
- 5) To calculate the amount of rootzone mix: take the area and multiply by the depth of rootzone (e.g. 1,200m² x 0.15m depth = 180m³ requirement). Multiply this figure by 1.6 to give the total tonnage: 180 x 1.6 = 288 tonnes. The mesh elements should be mixed at a rate of 3.4kg per tonne (288 x 3.4 = 980kg) The mesh elements come in 20kg bails so 980/20 = 49 bales. A 20kg bale of mesh elements is sufficient for approx. 6 tonnes of rootzone i.e. 3 bales for 18 tonnes etc.
- 6) Spread out measured quantity of rootzone material (say 18 tonnes) roughly 300mm thick on clean hard surface, e.g. concrete or asphalt. Unwind a bale over the layer of rootzone material and disperse the elements manually and blend the rootzone material and elements coarsely using a wheeled loader. Unwind another bale of elements over the mix and repeat until the required quantity of elements has been added.
- 7) An 18 tonne blend is a convenient quantity for a large wheeled loader (or two small loaders) to handle. For quantities greater than 18 tonnes build up several sand/elements layers using two machines.
- 8) Lift and drop the coarse blend into an adjacent pile using the wheeled loader. It is important not to push the layers into the pile as this will roll the elements and cause them to bunch.
- 9) Repeat until the blend is completely uniform; usually a total of four times.
- 10) Quality control: A 20kg sample of rootzone should contain 68.1g of the mesh elements. Allowing for errors in sampling, mesh content between 61.3g and 74.91g is acceptable for individual samples. Regular checks should be made to reconcile rootzone material tonnage with the number of bales used.
- 11) The rate of inclusion and the mix consistency are very important.
- 12) Mechanical mixing with specialist plant may be more appropriate for large quantities. Details of suitable methods and equipment are available from Naylor Environmental Limited.

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Management and maintenance during installation/establishment

For TechTurf installations - Granular Fertilisers

At installation: The supplied fertiliser to be spread evenly over the surface at 35g/m² prior to laying turf.

Then

Four weeks after installation:

Areas installed during autumn/winter (Oct/March) - 4N 12P 12K @ 70g/m² or a product with a similar ratio and application rate. Then, commence suggested routine fertiliser programme in Spring according to turf type.

Areas installed during spring/summer (April/Sept) - 9N 7P 7K @ 50g/m² or a product with a similar ratio and application rate. Then, commence suggested routine fertiliser programme 4 to 6 weeks later according to the turf type.

Notes:

- a) Apply all fertilisers evenly and avoid spillage as this may cause damage to seed or turf. All fertilisers are best applied when light rain is expected or when irrigation can be employed.
- b) Suggested fertiliser rates/ratios are for general guidance only and are based on commercially available compounds.
- c) Maintaining adequate available soil nutrients during both grass seed establishment and the first season's growth is critical to producing a well-knit mature sward. A balanced supply of fertiliser during the first full growing season is most important.
- d) Turf must not be allowed to dry out during the early stages of establishment. Frequent irrigation may be required during this period until the roots have penetrated into the rootzone.
- e) Fertilisers may be replaced with slow or controlled release products at the discretion of the user after consultation with their supplier.

IRRIGATION

Naylor TechTurf, like all natural regimes, requires water to become fully established and to survive. If this is not provided by rainfall then it must be irrigated, preferably overnight or late evening. The TechTurf will survive in drought conditions but will be susceptible to damage and take longer to recover if it is subjected to wear or various maintenance activities during such periods. The following irrigation rates may be used as a guide for when there is an absence of rainfall.

Conditions*	Irrigation	Irrigation frequency
windy 20°C	25mm	weekly
calm 20°C	20mm	weekly
windy 10°C	20mm	weekly
calm 10°C	12.5mm	weekly

* Temperatures are mean daytime

These rates can be reduced or increased depending on the rainfall level and temperatures during the period. Wherever possible, rainfall should be monitored daily. Prolonged drying out of the turf may lead to desiccation and reduced establishment.

ROLLING

New grass may need to be lightly rolled once it is established to re-consolidate the surface.
