

## Method Statement:

### Laying natural stone & precast concrete paving using SteinTec<sup>®</sup> mortars:

**tuffset<sup>®</sup> G + 2-pack aggregate** as bedding mortar, **tuffset<sup>®</sup> G** as priming/bonding mortar and **tuffset<sup>®</sup> G** as jointing mortar, laid upon all types roadbase or supporting structure.

Work must not be carried out in ambient temperatures of less than 2°C and night frosts must be guarded against.

### Laying paving units:

The surface of any bound roadbase must be sound and free of loose material and be thoroughly cleaned and rinsed using clean water.

Paving units should have been thoroughly cleaned and washed with water prior to use.

2 x 25 kg bags of **tuffbed<sup>®</sup> 2-pack aggregate** are mixed with 1 x 25 kg bag of **tuffset<sup>®</sup> G** to produce the bedding mortar. Typical volume of water to add per batch is between 3 and 5 litres, depending on the relative dampness of the aggregate, weather and ambient temperature.

It is recommended that sufficient water is added to the bedding mortar to achieve the 150 mm slump recommended in BS7533-4:2006 section 5.4.4.2

Do not mix more than will be used within approximately 15 minutes at an ambient 20°C

**tuffset<sup>®</sup> G** for use as a priming mortar is to be mixed with water to form a liquid, pasty slurry. Only small quantities should be mixed, as required, sufficient water being added to form a liquid consistency which readily forms a thick, creamy layer on the surface it is applied to.

Do not mix more than will be used within approximately 15 minutes at an ambient 20°C

When laying onto a concrete roadbase, **tuffset<sup>®</sup> G** priming mortar slurry is spread onto the surface of the base with a thickness of approximately 1 - 2 mm immediately prior to the bedding mortar being laid.

Do not mix more than will be used within approximately 15 minutes at an ambient 20°C

Bedding mortar should be laid out with a small surcharge height, typically 6 mm.

A bedding depth between 20 mm and 70 mm is most easy to install. A depth greater than 70 mm is made easier by first laying a screed bed which is allowed to stiffen before laying over it. 30 mm is a useful minimum target depth, for it permits errors in level of 10mm without problems.

The underside of paving units should be coated with a layer of **tuffset<sup>®</sup> G** priming mortar slurry with a thickness of approximately 1 - 2 mm immediately prior to the paving units being laid. This may be done using a brush or by dipping.

Paving units should be laid immediately, set out and positioned firmly into place to levels.

After laying, the surface must be thoroughly washed with water to remove surplus mortar laying on the surface of the paving.

The surface should be quarantined to prevent access, including pedestrian access, for a period of at least one hour in order to avoid disturbance and displacement of paving units on the fresh bedding mortar.

### **Jointing the paving:**

Immediately prior to jointing it must be ensured that the joints are free of debris.

The paving surface should be very thoroughly wetted and must be kept wet until jointing has been completed.

A 25 kg bag of **tuffset® G** will typically require the addition of 4.5 litres of water to achieve the correct flow properties. No less than 4 or more than 5 litres should be added. Water should be added progressively to the batch as mixing proceeds.

Do not mix more than will be used within approximately 15 minutes at an ambient 20°C

Immediately after mixing is completed, the mortar is spread onto the surface and carefully forced into the joints using a suitable soft rubber squeegee.

Apply the mortar without delay, do not store liquid mortar other than in transit from mixer.

A quantity of mortar should be maintained upon and constantly moved over the surface in order to repeatedly top up joints in which the mortar may have slumped following initial placement.

When the joints are full and will accept no more jointing mortar a suitable squeegee should be employed to remove as much mortar as possible from the surface.

The surface must be kept constantly moist, using a soft spray or mist of water, as required.

The surface may be rinsed clear of the thin film of mortar remaining as quickly as possible.

When the joint mortar has hardened sufficiently the surface can be thoroughly cleaned with a brush and copious amounts of water to remove all traces of mortar from the surface of the paving

### **Quarantine periods and opening to traffic:**

Typical early compressive strength gain figures for **tuffset® G** are as follows:

Bedding mortar mixed and laid in accordance with this method statement.....

1 hour.....	15 N/mm <sup>2</sup>
2 hours...	19 N/mm <sup>2</sup>
3 hours...	20 N/mm <sup>2</sup>
1 day.....	30 N/mm <sup>2</sup>

Jointing mortar mixed and applied in accordance with this method statement.....

1 hour.....	17 N/mm <sup>2</sup>
2 hours...	23 N/mm <sup>2</sup>
3 hours...	24 N/mm <sup>2</sup>
1 day.....	40 N/mm <sup>2</sup>