



Technical Data – *tuffset G* rapid high-strength mortar

Tuffset G is a high performance hydraulic mortar with rapid strength gain. Capable of being subjected to heavy trafficking within three hours or less, **tuffset G** is a versatile product that can be used effectively as bedding, primer and grouting, as well as being ideal for emergency repairs to modular paving, concrete and ironworks.

A realistic working life of around 20 minutes at 20° means that sufficient quantities can be mixed to allow productive workflow, while keeping waste to a minimum. The absence of polymers, chemical admixtures and resin binders, also means **tuffset G** can be easily cleaned, and residual stains avoided.

In common with all **tuffbau Steintec** mortars, **tuffset G** is fully compliant with all aspects of the British Standards for modular paving, BS

7533, meeting or exceeding all of the Standard's rigorous requirements for low elastic modulus, high adhesion bond and all-round performance.

Adhesion bond in British Standards for pavement construction is 2 N/mm². **tuffset G** achieves consistently more than 3 N/mm². Adhesion bond is key to any successful repair or early trafficking of modular paving. **tuffset G**'s final strength is similar to standard mortar, showing no downside to its very rapid early strength gain, and the stiffness modulus is similar to other products in the **tuffbau Steintec** range.



Bedding mortar

To use as a high-speed early strength gain bedding mortar – mix one bag of **tuffset G** with 2 bags of **Steintec tuffgrit** aggregate. Suitable for 3-hour trafficking at 20° C.

For an overnight solution, with a slightly less rapid strength gain, mix one bag of **tuffset G** with 4 bags of **Steintec tuffgrit** aggregate.



Bonding mortar

Add water to **tuffset G** and use a mixing paddle to produce a thick, high adhesion slurry paste, that can be applied with a trowel or stiff brush - in exactly the same way as **tuffbond** priming mortar



Jointing mortar

Add water to **tuffset G** and use a mixing paddle or forced action mixer to produce a highly plastic, just-pourable jointing grout.



Emergency concrete repair

Mix one bag of **tuffset G** with one bag of **Steintec tuffgrit** aggregate to execute a concrete repair with stiffness modulus, compressive and flexural strength compatible with pavement quality concrete C32/40.



Tuffset G Technical Performance (at 20°C)				
	tuffset G for jointing or priming	Mixed 1:1 for concrete repairs	Mixed 1:2 for rapid strength	Mixed 1:4 for overnight strength gain
Compressive strength gain				
- 1 hour	~ 17 N/mm ²	~ 27 N/mm ²	~ 15 N/mm ²	~ 10 N/mm ²
- 2 hours	~ 23 N/mm ²	~ 34 N/mm ²	~ 19 N/mm ²	~ 12 N/mm ²
- 3 hours	~ 24 N/mm ²	~ 37 N/mm ²	~ 20 N/mm ²	~ 15 N/mm ²
- 1 day	~ 40 N/mm ²	~ 50 N/mm ²	~ 30 N/mm ²	~ 25 N/mm ²
- 28 days	~ 58 N/mm ²	~ 70 N/mm ²	~ 40 N/mm ²	~ 40 N/mm ²
BS7533 requirement	~ 40 N/mm ²	~ 35 N/mm ²	~ 35 N/mm ²	~ 35 N/mm ²
Adhesion bond final strength				
- 28 days	~ 3 N/mm ²	~ 3 N/mm ² with tuffset G used as primer ~ 1 N/mm ² without		
BS7533 requirement	~ 2 N/mm ²	~ 1 N/mm	~ 1 N/mm	~ 1 N/mm
Flexural strength				
- 3 hours	~ 4 N/mm ²	~ 4 N/mm ²	~ 4 N/mm ²	~ 3 N/mm ²
- 1 day	~ 7 N/mm ²	~ 6 N/mm ²	~ 6 N/mm ²	~ 5 N/mm ²
BS7533 requirement	~ 4 N/mm ²			
Elastic modulus				
- 28 days	~ 23 kN/mm ²	~ 18 kN/mm ²	~ 18 kN/mm ²	~ 18 kN/mm ²
BS7533 requirement	16-24 kN/mm ²	15-21 kN/mm ²	15-21 kN/mm ²	15-21 kN/mm ²
Shrinkage				
	< 0.1%	< 0.1%	< 0.1%	< 0.1%