Prepare the subgrade

Roll out the geotextile

Overlapping or welding

Repair of damages (if rqd.)

Place sub-base material

Spread sub-base material

Compaction

Fill in ruts (if necessary)

Details see overleaf
1. **Subgrade preparation**
Level the subgrade to remove ruts, potholes etc. with a depth greater than 100 mm.

2. **Laying the geotextile**
Roll out the geotextile over the prepared subgrade.

3. **Jointing of geotextile layers**
Jointing is made by overlapping of rolls by at least 300 mm. Increase the overlap to at least 500 mm if the subgrade is very uneven or soft.

A geotextile weight > 200 g/m² allows welding. Welding of the laps is preferable over very low bearing-capacity subgrades. The geotextile is overlapped 100–200 mm and heated with a propane burner or a blowlamp to soften the fibres and allow them to fuse when pressed together. Care should be taken not to overheat the geotextile. It is sufficient for the person unrolling the overlapping layer to walk over the heated lap to weld the two sheets together. If the geotextile is damp and welding difficult, the overlap dimension should be increased to 500 mm.

4. **Repair of damages (if necessary)**
In the case of damages occurring during installation, these have to be covered with a piece of nonwoven of the same quality. Such patches can be cut to size with a knife or with scissors.

The cover must protrude by a minimum of 500 mm over the edge of the damaged spot. The patches must be fixed in their position with fill material, or by welding.

5. **Placing of the sub-base material**
Trucks should not be driven directly over the geotextile; the aggregate should be back dumped. The required depth of the fill material depends in the bearing capacity of the subsoil but should not be less than 400 mm for low bearing-capacity soils.

6. **Spreading**
Spreading should be carried out with tracked plant (due to lower pressure soil contact-pressure).

7. **Compaction**
Compaction is best done using a vibrating plate or vibro roller. Adequate compaction has been achieved when loaded trucks driving on the sub-base do not cause ruts more than 30 mm deep. If deeper ruts occur even after good compaction, the thickness of the sub-base layer must be increased.

8. **Rut repair (if necessary)**
If rutting occurs after a period of use, re-grade the sub-base layer by filling these ruts with fresh aggregate. Do not simply level out with a grader.