

## RING STIFFNESS OF aquatherm blue pipe

The aquatherm blue pipes SDR 11 MF (90-400 mm) and SDR 17.6 MF (160-630 mm) have been tested according to DIN EN ISO 9969 with 3% pipe deformation and have a ring stiffness of  $\geq 16 \text{ KN/m}^2$ . Thus, they are classified in the ring stiffness class SN16, which corresponds to the highest standard category.

**Underground installation:** The depth of the trench adds up from the depth of the frost line, the outer diameter of the pipe and the height of the bedding (**A+Da+B**). The frost line must be observed: 0.5 m – 9.0 m above the pipe peak (E). If the pipes are installed outside the specified laying depth, a load distribution by steel or concrete slabs must be installed.

**Traffic load:** SLW 60, heavy forklift (60 tons maximum load).

**Trench design:** Recommended calculation according to ATV A 127 (basis for calculation).

**Laying conditions:** We recommend laying the pipes in a narrow trench in which nevertheless sufficient space for working is available.

**Bedding layer (B):** In normal soil 100 mm sand with round graining size 0-8 mm.  
When rock or rocky soils 150 mm sand with round graining size 0-8 mm.  
This layer is equally compressed ( $\geq 97\%$  Proctor) with gaps in the socket area. Non sustainable soils are made stable by the choice of the bedding layer. Note planning requirements.

**Backfilling:** The building material 4/8 mm graining is filled in layers in order to construct the lateral bedding (C) and the covering (D). Thereby the peak of the pipe (E) is covered with minimum 100 mm. Then the main filling (F) with the excavation can be carried out. Note that the grain size does not exceed 300 mm respectively sharp and rough stones are removed. Planning requirements of the filling levels are always to be considered.  
Each filling is compressed separately.

**Compaction:** The compression ( $\geq 97\%$  Proctor) of the lateral bedding (C) and the covering (D) is done by hand or with light equipment. If the main filling is made with minimum 20 cm, the trench can be compressed 95 % Proctor upwards from this layer with heavy equipment. The last 50 cm of the trench are compressed with 97 – 100 % Proctor.

