

# INPUT DATA FORM FOR STATIC CALCULATION OF VERTICAL LOAD CAPACITY OF PIPES ACCORDING TO ATV 127

## 1. PROJECT DATA

Name of the project: \_\_\_\_\_

Construction site address: \_\_\_\_\_

Investor: \_\_\_\_\_

### Contact person

email: \_\_\_\_\_

telephone/fax: \_\_\_\_\_

cell phone: \_\_\_\_\_

Date: \_\_\_\_\_

## 2. PIPE DATA

Material: PVC smooth      HDPE corrugated      PP corrugated

HDPE Spiropipe      PP sewage smooth      PEHD smooth (pressure pipes)

Nominal diameter: \_\_\_\_\_

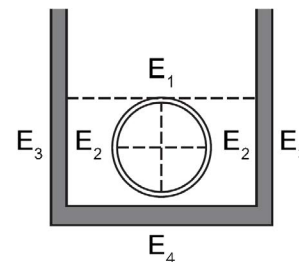
Ring stiffness class (gravity sewage): SN2 SN4 SN8 SN10 SN12 SN16 SN\_\_\_\_

Nominal pressure (pressure pipes): PN6 PN10 PN16 PN20

## 3. SOIL DATA

Class:

E1	G1	G2	G3	G4
E2	G1	G2	G3	G4
E3	G1	G2	G3	G4
E4	G1	G2	G3	G4



As part of this request, an explanation of soil types according to the ENV 1046 standard is attached.

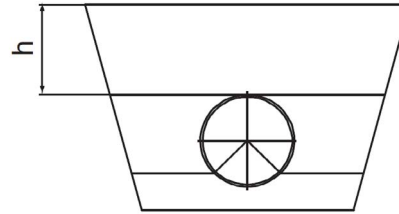
The soil deformation modules according to the picture above are equal to (write the values):

E1= \_\_\_\_\_ N/mm<sup>2</sup>    E2= \_\_\_\_\_ N/mm<sup>2</sup>    E3= \_\_\_\_\_ N/mm<sup>2</sup>    E4= \_\_\_\_\_ N/mm<sup>2</sup>

## 4. LOAD

The height of the ground above the top of the pipe (shown in the picture):

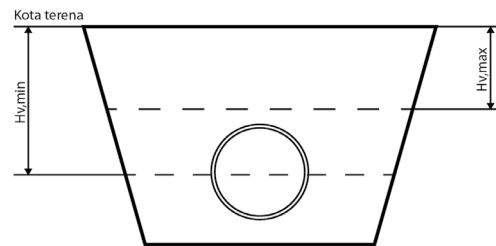
H= \_\_\_\_ m



Existence of underground water: YES NO

Maximum and minimum groundwater level above the top of the pipe (see figure):

Hw max \_\_\_\_ m Hw min \_\_\_\_ m



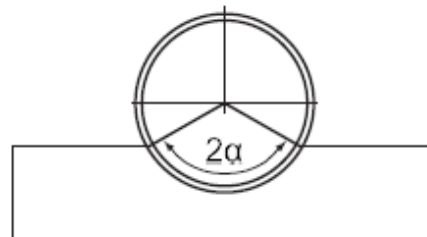
Traffic load:                      HGV 12 (12 t)      HLC 30 (30 t)      HLC 60 (60 t)

Railway load:                    YES            NO

## 5. CONDITIONS OF PIPE LAYING

Pipe bedding angle,  $2\alpha$  (see the picture):

60°    90°    120°    180°



Laying conditions (see the explanation):                      B1            B2            B3            B4

Unlike the trench backfilling conditions (A1, A2, A3, A4), these conditions refer to backfilling in the pipe zone.

**B1** - Backfilling of pipes with soil compaction in layers (without checking the degree of compaction).

**B2** - Trench with vertical shoring over the entire height of the trench. When backfilling the trench, vertical shoring is successively extracted (first the trench is backfilled to a certain depth, then the vertical shoring is extracted to the level of the filled part). Soil compaction is carried out after pulling out the formwork from the filled part. This backfilling of the trench must be done in stages of 30 - 50 cm.

**B3** - Compaction along the vertical shoring, before extraction. This type is allowed if thin form work is used in the pipe area.

**B4** - Compacted backfilling of the trench next to native soil in layers with a check of the degree of compaction according to ZTVE-StB. This type of backfilling of the trench is not allowed if the backfill soil belongs to group G4.

## 6. TRENCH FILLING CONDITIONS

The width of the trench above the top of the pipe  $b$  (m) (od 0,1 do 20 m)  $b = \underline{\hspace{2cm}}$  m

Excavation slope angle  $\beta = \underline{\hspace{2cm}}$  °

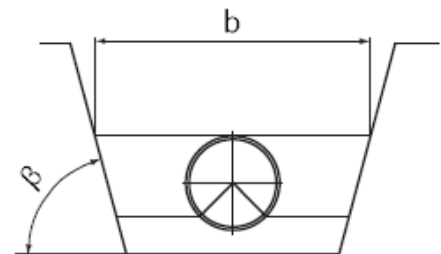
Backfill conditions above the pipe zone (see the explanation):    **A1**    **A2**    **A3**    **A4**

**A1** - The backfill of the excavation is compacted with suitable soil in layers of 30 cm (without checking the level of compaction) by compacting up to the pipe wall.

**A2** - Careful backfill using specially excavated calibrated fractions, which are not thrown to the backfill. Excavation backfill is not compacted and sifted material is used (only suitable for soil class G1).

**A3** - Careful digging (backfilling) using different profiles (lightened profiles, wooden beams, stones that are not placed up to the backfill of the pipes).

**A4** - Backfill is compacted in layers using soil in accordance with the requirements of ZTVE - StB degree of compaction. Backfill conditions A4 are not recommended for soil class G4.



## 7. NOTE

In case of unusual installation conditions (installation of pipes in an embankment, installation of pipes under a railway or airport, the need for calculation of smooth HDPE pipes for pressurized water or gas...) contact the technical support of the company "Peštan".

Form filled by (signature):