

# Analysis of Reinforced Earth with geosynthetics and gabions

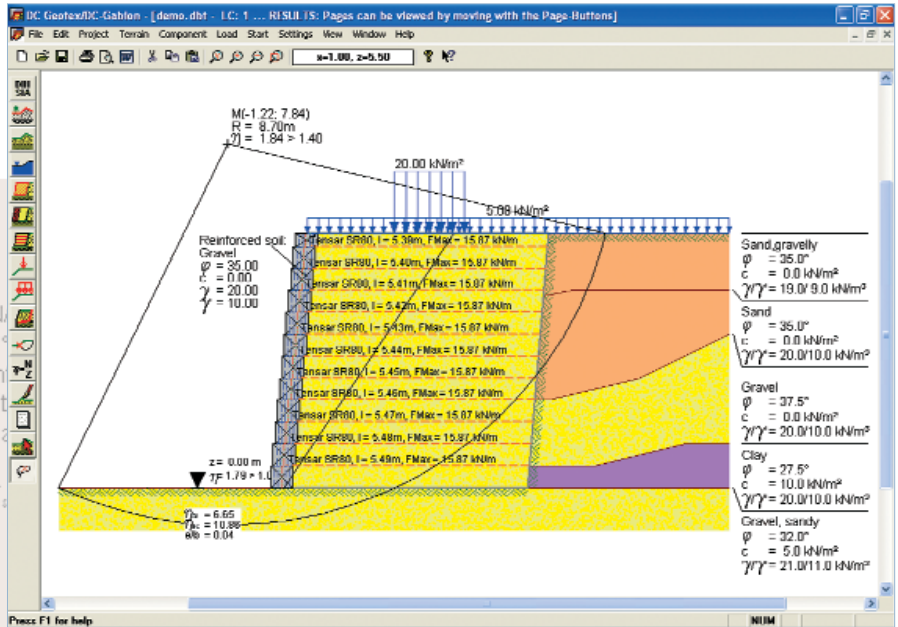
## DC-Geotex / DC-Gabion

**DC-Geotex:**  
reinforced earth

### Proofs of the lining wall

Inclination of the wall  $\alpha = -5.65^\circ$   
 Specific weight of the wall = 25.00 kN/m<sup>3</sup>  
 Friction between soil - wall  $\delta_s = 0.00^\circ$   
 Factor of friction between wall elements  $\delta = 0.00^\circ$   
 h = horizontal load (Max(acting))  
 v = vertical wall load (vertical)  
 A = Support  
 F<sub>act</sub> = Safety against sliding F<sub>act</sub>  
 e = Eccentricity e = M/N

x	z	h	v	N	Q
[m]	[m]	[kN/m <sup>2</sup> ]	[kN/m <sup>2</sup> ]	[kN]	[kN]
0.62	5.80	2.14	12.50	0.00	0.00
0.59	5.50	3.00	12.50	-3.82	-1.06
0.59	5.50	3.72	12.50	-3.58	-1.32
0.54	5.00	5.29	12.50	-10.05	-1.46
0.54	5.00	5.87	12.50	-9.73	-1.75
0.50	4.50	7.62	12.50	-16.30	-2.15
0.50	4.50	8.21	12.50	-15.86	-2.37
0.45	4.00	9.96	12.50	-22.55	-2.70
0.45	4.00	10.54	12.50	-21.99	-2.92
0.40	3.50	12.30	12.50	-28.80	-3.32
0.40	3.50	12.88	12.50	-28.11	-3.62
0.35	3.00	14.63	12.50	-35.03	-3.79
0.35	3.00	15.22	12.50	-34.29	-3.74
0.30	2.50	20.51	12.50	-41.29	-4.44
0.30	2.50	21.18	12.50	-40.27	-5.80
0.25	2.00	23.16	12.50	-47.61	-5.81
0.25	2.00	23.80	12.50	-46.54	-5.03
0.20	1.50	25.70	12.50	-54.00	-7.87
0.20	1.50	26.33	12.50	-52.07	-11.65
0.15	1.00	28.19	12.50	-59.66	-2.51
0.15	1.00	28.80	12.50	-60.44	-10.43



- Reinforced earth and gabions
- German, English, French program version
- Analysis of Reinforced earth with geosynthetics based on the new EBGEO with partial safety factors (DC-Geotex)
- Analysis of gabions etc. acc. to the bulletin on supporting structures from concrete elements, layered blocks and gabions (DC-Gabion)
- Calculation of the required geosynthetics lengths
- Check of the inner stability using the block sliding approach

- Check of the external stability:
  - Safety against overturning
  - Safety against sliding
  - Bearing capacity
  - Slope stability
- Check of the translocated length and of the earth pressure on the lining wall
- Different lining walls with checks (eccentricity, sliding, transfer of the anchorage force, gabion wire)
- Selection of predefined geosynthetics with reduction factors, freely extendable
- Automatic function for a fast input of many geosynthetics layers
- Different load cases
- Arbitrary course of soil layers by earth pressure calculation acc. to Culmann
- Appealing result graphics
- Alternatively extensive or short output

**DC-Gabion:**  
gabion walls

