

Tabelle 10-10 Erddruckbeiwerte K_{pgh} für zusammengesetzte Gleitflächen nach Sokolovskii [251] und Pregl [233] und diskrete Werte des Reibungswinkels φ , des Neigungswinkels δ_p der Erddrücke sowie des Wand- und des Geländeneigungswinkels α und β

φ (in °)	α (in °)	K_{pgh}							
		$\delta_p = 0^\circ$		$\delta_p = -\frac{1}{2} \cdot \varphi$		$\delta_p = -\frac{2}{3} \cdot \varphi$		$\delta_p = -\varphi$	
		$\beta = 0^\circ$	$\beta = 10^\circ$	$\beta = 0^\circ$	$\beta = 10^\circ$	$\beta = 0^\circ$	$\beta = 10^\circ$	$\beta = 0^\circ$	$\beta = 10^\circ$
0,0	0	1,000	–	1,000	–	1,000	–	1,000	–
	–10	1,000	–	1,000	–	1,000	–	1,000	–
2,5	0	1,091	–	1,098	–	1,100	–	1,103	–
	–10	1,095	–	1,097	–	1,098	–	1,099	–
5,0	0	1,191	–	1,211	–	1,217	–	1,229	–
	–10	1,218	–	1,229	–	1,232	–	1,238	–
7,5	0	1,300	–	1,344	–	1,358	–	1,382	–
	–10	1,355	–	1,384	–	1,393	–	1,407	–
10,0	0	1,420	1,584	1,501	1,674	1,525	1,701	1,569	1,750
	–10	1,507	1,681	1,568	1,749	1,585	1,768	1,613	1,800
12,5	0	1,553	1,769	1,685	1,919	1,725	1,965	1,798	2,048
	–10	1,678	1,911	1,785	2,034	1,816	2,068	1,867	2,127
15,0	0	1,698	1,976	1,903	2,214	1,965	2,286	2,078	2,418
	–10	1,869	2,175	2,045	2,379	2,095	2,437	2,179	2,535
17,5	0	1,860	2,210	2,162	2,568	2,255	2,679	2,424	2,880
	–10	2,084	2,477	2,357	2,800	2,434	2,893	2,565	3,048
20,0	0	2,040	2,475	2,471	2,998	2,606	3,162	2,852	3,461
	–10	2,328	2,825	2,732	3,316	2,850	3,458	3,046	3,696
22,5	0	2,240	2,776	2,842	3,522	3,033	3,760	3,384	4,194
	–10	2,604	3,228	3,188	3,952	3,600	4,165	3,647	4,520
25,0	0	2,464	3,119	3,290	4,164	3,557	4,503	4,049	5,126
	–10	2,919	3,695	3,745	4,741	3,992	5,053	4,403	5,573
27,5	0	2,716	3,511	3,833	4,955	4,203	5,434	4,886	6,317
	–10	3,280	4,240	4,429	5,726	4,779	6,179	5,359	6,929
30,0	0	3,000	3,961	4,496	5,937	5,004	6,607	5,946	7,851
	–10	3,695	4,879	5,276	6,967	5,768	7,616	6,579	8,686
32,5	0	3,323	4,480	5,311	7,162	6,004	8,097	7,296	9,839
	–10	4,177	5,632	6,333	8,541	7,020	9,466	8,142	10,98
35,0	0	3,690	5,082	6,319	8,703	7,262	10,00	9,027	12,43
	–10	4,738	6,526	7,663	10,55	8,616	11,87	10,16	13,99
37,5	0	4,112	5,784	7,575	10,66	8,856	12,46	11,26	15,84
	–10	5,399	7,594	9,350	13,15	10,67	15,01	12,79	17,98
40,0	0	4,599	6,607	9,153	13,15	10,89	15,65	14,17	20,36
	–10	6,181	8,880	11,51	16,54	13,34	19,17	16,23	23,31

Tabelle 10-11 Erddruckbeiwerte K_{pph} für zusammengesetzte Gleitflächen nach Sokolovskii [251] und Pregl [233] und diskrete Werte des Reibungswinkels φ , des Neigungswinkels δ_p der Erddrücke sowie des Wand- und des Geländeneigungswinkels α und β

φ (in °)	α (in °)	K_{pph}							
		$\delta_p = 0^\circ$		$\delta_p = -\frac{1}{2} \cdot \varphi$		$\delta_p = -\frac{2}{3} \cdot \varphi$		$\delta_p = -\varphi$	
		$\beta = 0^\circ$	$\beta = 10^\circ$	$\beta = 0^\circ$	$\beta = 10^\circ$	$\beta = 0^\circ$	$\beta = 10^\circ$	$\beta = 0^\circ$	$\beta = 10^\circ$
0,0	0	1,000	–	1,000	–	1,000	–	1,000	–
	–10	1,000	–	1,000	–	1,000	–	1,000	–
2,5	0	1,091	–	1,097	–	1,098	–	1,102	–
	–10	1,108	–	1,109	–	1,110	–	1,110	–
5,0	0	1,191	–	1,209	–	1,215	–	1,224	–
	–10	1,228	–	1,237	–	1,239	–	1,243	–
7,5	0	1,300	–	1,340	–	1,352	–	1,372	–
	–10	1,361	–	1,387	–	1,394	–	1,404	–
10,0	0	1,420	1,551	1,494	1,631	1,515	1,653	1,551	1,693
	–10	1,510	1,649	1,564	1,707	1,578	1,722	1,598	1,744
12,5	0	1,553	1,732	1,673	1,867	1,707	1,905	1,765	1,969
	–10	1,677	1,872	1,773	1,979	1,797	2,005	1,832	2,045
15,0	0	1,698	1,937	1,884	2,149	1,936	2,208	2,022	2,307
	–10	1,865	2,127	2,021	2,305	2,060	2,349	2,116	2,413
17,5	0	1,860	2,169	2,133	2,487	2,209	2,575	2,333	2,720
	–10	2,076	2,421	2,317	2,701	2,376	2,770	2,460	2,868
20,0	0	2,040	2,431	2,427	2,893	2,535	3,021	2,709	3,229
	–10	2,316	2,760	2,671	3,183	2,758	3,287	2,879	3,431
22,5	0	2,240	2,729	2,777	3,384	2,926	3,565	3,164	3,855
	–10	2,588	3,153	3,097	3,773	3,222	3,925	3,390	4,129
25,0	0	2,464	3,068	3,195	3,979	3,398	4,232	3,718	4,630
	–10	2,900	3,611	3,613	4,499	3,788	4,717	4,016	5,001
27,5	0	2,716	3,457	3,696	4,705	3,970	5,053	4,394	5,593
	–10	3,257	4,146	4,241	5,399	4,483	5,706	4,786	6,092
30,0	0	3,000	3,903	4,300	5,595	4,665	6,070	5,222	6,794
	–10	3,670	4,775	5,012	6,520	5,341	6,949	5,738	7,465
32,5	0	3,323	4,419	5,032	6,692	5,517	7,337	6,241	8,300
	–10	4,150	5,519	5,962	7,929	6,408	8,522	6,919	9,202
35,0	0	3,690	5,017	5,925	8,054	6,564	8,924	7,499	10,19
	–10	4,712	6,406	7,144	9,712	7,744	10,53	8,393	11,41
37,5	0	4,112	5,714	7,020	9,755	7,862	10,92	9,060	12,59
	–10	5,375	7,469	8,627	11,99	9,431	13,11	10,24	14,23
40,0	0	4,599	6,532	8,374	11,89	9,479	13,46	11,01	15,63
	–10	6,164	8,755	10,50	14,92	11,58	16,45	12,57	17,85

Für den Sonderfall ebener Gleitflächen und $\alpha = \beta = \delta_p = 0^\circ$ gilt mit K_{pgh} aus Gl. 10-126 (Bild 10-48 gilt auch für K_{pph})

$$K_{pph} = K_{pgh} = \frac{1 + \sin \varphi}{1 - \sin \varphi} = \tan^2 \left(45^\circ + \frac{\varphi}{2} \right) \quad \text{Gl. 10-153}$$

$$e_{pcv} = \frac{1}{h} \cdot E_{pcv} = \frac{1}{h} \cdot E_{pch} \cdot \tan(\delta_p + \alpha) = c \cdot K_{pch} \cdot \tan(\delta_p + \alpha) \quad \text{Gl. 10-165}$$

und für den resultierenden Erddruck selbst

$$e_{pc} = \frac{1}{h} \cdot E_{pc} = \frac{1}{h} \cdot \frac{E_{pch}}{\cos(\alpha + \delta_p)} = \frac{1}{h} \cdot \frac{E_{pcv} \cdot \tan(\alpha + \delta_p)}{\cos(\alpha + \delta_p)} = c \cdot K_{pc} = c \cdot \frac{K_{pch}}{\cos(\alpha + \delta_p)} \quad \text{Gl. 10-166}$$

Tabelle 10-12 Erddruckbeiwerte K_{pch} für zusammengesetzte Gleitflächen nach Sokolovskii [251] und Pregl [233] und diskrete Werte des Reibungswinkels φ , des Neigungswinkels δ_p der Erddrücke sowie des Wand- und des Geländeneigungswinkels α und β

φ (in °)	α (in °)	K_{pch}							
		$\delta_p = 0^\circ$		$\delta_p = -\frac{1}{2} \cdot \varphi$		$\delta_p = -\frac{2}{3} \cdot \varphi$		$\delta_p = -\varphi$	
		$\beta = 0^\circ$	$\beta = 10^\circ$	$\beta = 0^\circ$	$\beta = 10^\circ$	$\beta = 0^\circ$	$\beta = 10^\circ$	$\beta = 0^\circ$	$\beta = 10^\circ$
0,0	0	2,000	–	2,000	–	2,000	–	2,000	–
	–10	2,000	–	2,000	–	2,000	–	2,000	–
2,5	0	2,089	–	2,100	–	2,103	–	2,109	–
	–10	2,121	–	2,124	–	2,124	–	2,125	–
5,0	0	2,183	–	2,216	–	2,226	–	2,244	–
	–10	2,250	–	2,267	–	2,712	–	2,278	–
7,5	0	2,281	–	2,351	–	2,371	–	2,407	–
	–10	2,388	–	2,433	–	2,445	–	2,462	–
10,0	0	2,384	2,659	2,507	2,796	2,542	2,835	2,602	2,902
	–10	2,535	2,827	2,625	2,928	2,647	2,953	2,681	2,991
12,5	0	2,492	2,839	2,686	3,060	2,740	3,122	2,833	3,227
	–10	2,692	3,067	2,846	3,242	2,884	3,286	2,941	3,350
15,0	0	2,607	3,033	2,892	3,364	2,971	3,457	3,104	3,611
	–10	2,862	3,330	3,101	3,609	3,161	3,678	3,247	3,778
17,5	0	2,728	3,241	3,128	3,717	3,239	3,849	3,422	4,066
	–10	3,045	3,618	3,397	4,037	3,484	4,140	3,607	4,287
20,0	0	2,856	3,466	3,399	4,126	3,550	4,308	3,794	4,604
	–10	3,243	3,936	3,740	4,539	3,862	4,687	4,031	4,892
22,5	0	2,993	3,710	3,712	4,600	3,910	4,847	4,229	5,241
	–10	3,459	4,287	4,139	5,130	4,305	5,336	4,530	5,614
25,0	0	3,139	3,974	4,071	5,153	4,330	5,481	4,737	5,997
	–10	3,694	4,677	4,603	5,827	4,826	6,109	5,117	6,477
27,5	0	3,296	4,261	4,486	5,799	4,818	6,228	5,333	6,894
	–10	3,953	5,110	5,147	6,655	5,440	7,033	5,808	7,509
30,0	0	3,464	4,574	4,965	6,556	5,387	7,113	6,030	7,962
	–10	4,238	5,595	5,787	7,641	6,167	8,143	6,625	8,748
32,5	0	3,646	4,916	5,521	7,446	6,053	8,163	6,847	9,234
	–10	4,553	6,140	6,542	8,822	7,031	9,481	7,592	10,24
35,0	0	3,842	5,291	6,168	8,495	6,834	9,413	7,807	10,75
	–10	4,906	6,757	7,438	10,24	8,063	11,10	8,738	12,03
37,5	0	4,056	5,705	6,924	9,739	7,754	10,91	8,936	12,57
	–10	5,301	7,457	8,509	11,97	9,302	13,08	10,10	14,21
40,0	0	4,289	6,162	7,809	11,22	8,841	12,70	10,26	14,75
	–10	5,749	8,258	9,795	14,07	10,80	15,51	11,72	16,84