

**Table 1. Combination Factors**

Action Type		$\Psi$
Permanent (G)		1.0
Variable (Q)	Leading variable load	1.0
	Accompanying variable load	0.7 (for wind load 0.6)

**Table 2. Partial Factors for Design Approach 1 (DA 1)**

Design Approach 1			Combination 1			Combination 2		
			A1	M1	R1	A2	M1	R4
Permanent actions (G)	Unfavourable †	$\gamma_G$	1.35			1.0		
	Favourable	$\gamma_{G,fav}$	1.0			1.0		
Variable actions (Q)	Unfavourable †	$\gamma_Q$	1.5			1.3		
	Favourable	$\gamma_{Q,fav}$	0			0		
Material properties (X)		$\gamma_M$		1.0			1.0	
Base resistance ( $R_b$ )	Driven pile	$\gamma_b$			1.0			1.3
	Bored pile				1.25			1.6
	CFA pile				1.1			1.45
Shaft resistance ( $R_s$ )		$\gamma_s$			1.0			1.3
Total resistance ( $R_c$ )	Driven pile	$\gamma_t$			1.0			1.3
	Bored pile				1.15			1.5
	CFA pile				1.1			1.4
Tensile resistance ( $R_{st}$ )		$\gamma_{st}$			1.3			1.6

†Partial factors for accidental design situations are 1.0

**Table 3. Partial Factors for Design Approach 2 (DA 2)**

Design Approach 2			A1	M1	R2
Permanent actions (G)	Unfavourable†	$\gamma_G$	1.35		
	Favourable	$\gamma_{G,fav}$	1.0		
Variable actions (Q)	Unfavourable†	$\gamma_Q$	1.5		
	Favourable	$\gamma_{Q,fav}$	0		
Material properties (X)		$\gamma_M$		1.0	
Base resistance ( $R_b$ )		$\gamma_b$			1.1
Shaft resistance ( $R_s$ )		$\gamma_s$			
Total resistance ( $R_c$ )		$\gamma_t$			
Tensile resistance ( $R_{st}$ )		$\gamma_{st}$			1.15

†Partial factors for accidental design situations are 1.0

**Table 4. Partial Factors for Design Approach 3 (DA 3)**

Design Approach 3			A1	A2	M2	R3
Permanent actions (G)	Unfavourable†	$\gamma_G$	1.35	1.0		
	Favourable	$\gamma_{G,fav}$	1.0	1.0		
Variable actions (Q)	Unfavourable†	$\gamma_Q$	1.5	1.3		
	Favourable	$\gamma_{Q,fav}$	0	0		
Coefficient of shearing resistance ( $\tan \varphi$ )		$\gamma_\varphi$			1.25	
Effective cohesion ( $c'$ )		$\gamma_{c'}$			1.25	
Undrained strength ( $c_u$ )		$\gamma_{cu}$			1.4	
Unconfined compressive strength ( $q_u$ )		$\gamma_{qu}$			1.4	
Weight density ( $\gamma$ )		$\gamma_\gamma$			1.0	
Base resistance ( $R_b$ )		$\gamma_b$				1.0
Shaft resistance ( $R_s$ )		$\gamma_s$				
Total resistance ( $R_t$ )		$\gamma_t$				
Shaft resistance in tension ( $R_{st}$ )		$\gamma_{st}$				1.1

†Partial factors for accidental design situations are 1.0

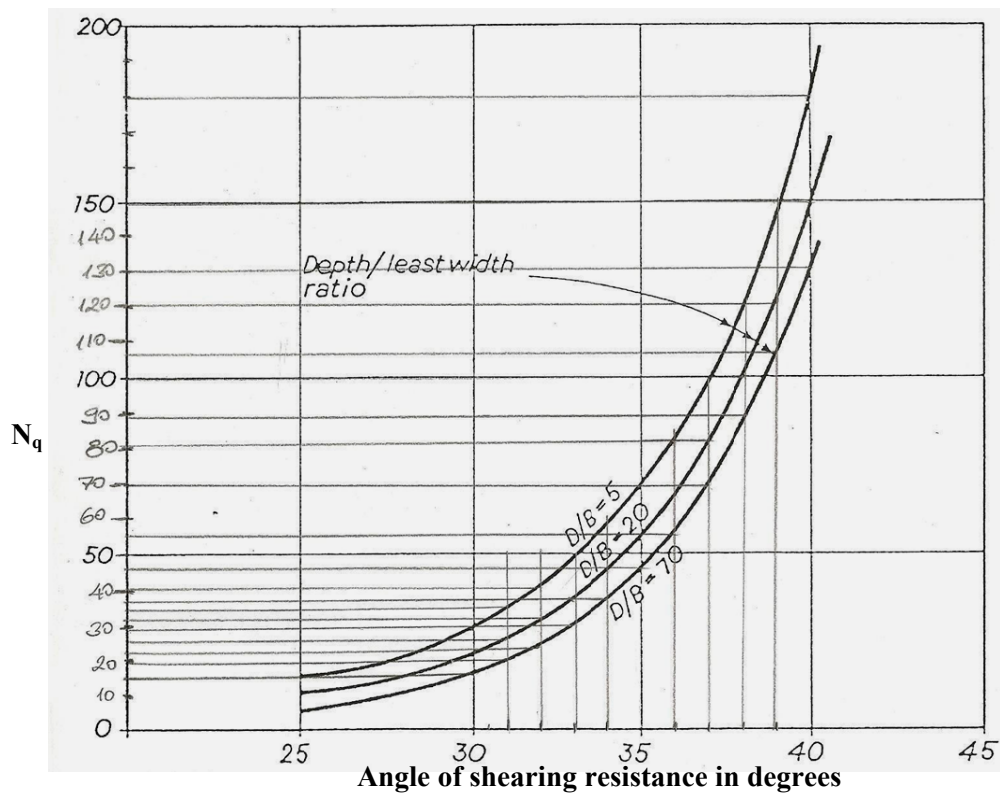


Figure 1. Bearing capacity factor (Berezantsev 's values of  $N_q$ )

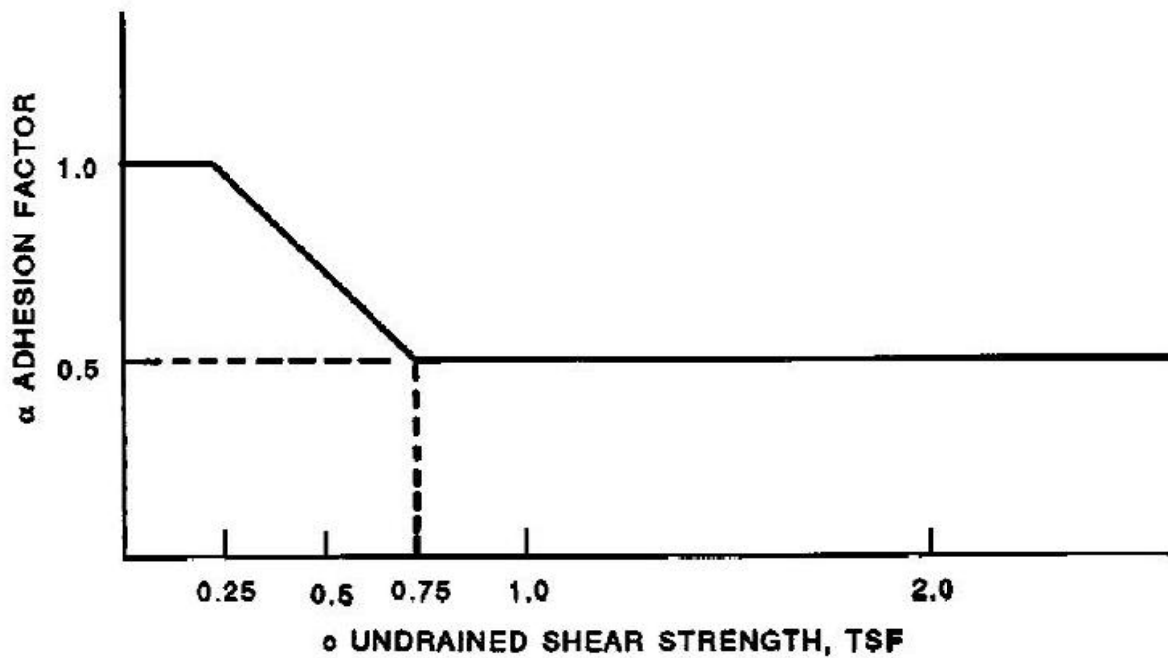


Figure 2. Adhesion factors versus undrained shear strength  
(US Army Corps of Engineers)