



Coastal Construction Manual

FORMULA CALCULATOR

12.7 Ultimate Tension Capacity of a Single Pile

k_{HT} :		T_{ult} =	lb
P_o :			
δ :			
s :			
D :			

$$T_{ult} = (k_{HT})(P_o)(\tan \delta)(s)(D)$$

T_{ult} = ultimate load capacity in tesion (lb)

k_{HT} = earth pressure coefficient in tension

δ = friction angle between pile and soil

P_o = effective vertical stress over depth of embedment, D (lb/ft²)

s = surface area of pile per unit length (ft)

D = depth of embedment (ft)