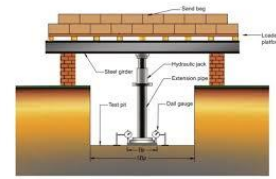


## Types of soil and their load bearing capacities.

The first parameter to be considered is the load bearing capacity of the soil. The load bearing capacity of the soil is given in the tables below.



Load bearing capacity for rocks			
Types of rocks	Load bearing capacity. Tonnes / sq. me	Types of rocks	Load bearing capacity. Tonnes / sq. me
Hard rocks	Above 220	Moorum	20 to 45
Ordinary rocks	Above 110	Clay shales	110
Sandstone	130 to 2210	Marl and firm shale	65
Limestone	100 to 200	Hard chalk	45 to 65
Soft rock	20 to 90	Soft chalk	17
Note these figures are taken from "Indian Civil Engineering Handbook" by P.N. Khanna. UBS Publishers' distributors Pvt. Ltd. ISBN 978-81-7476-747-9			
These data are should only be use as a first approximation and guide. The final design should be completed by a qualified Civil Engineer. If you require the service of good civil engineers you may contact the Institution of Engineers Sri Lanka or alternatively contact us, and we should be able to let you have a list of engineers.			

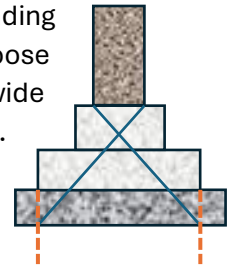
Cohesive Soils	
Types of rocks	Load bearing capacity. Tonnes / sq. me
Very stiff builder clays	65
Hard or stiff clays and sandy clays	30 to 44
Firm clays and sandy clays	20
Ordinary clay	20
Sand and clay mixed or in layers	20
Red earth	30
Moist clay	10 to 20
Soft clay and silts	10
Very soft clay and silts and peat	5 to nil
Black cotton soil	5 to 10
Alluvial soil	3 to 9
Alluvial loams	9 to 17
Made ground (Consolidated)	5
Hoggin (Compacted)	65

Cohesive Soils	
Types of soil	Load bearing capacity. Tonnes / sq. me
Compacted gravel or sand well cemented	55 to 80
Compacted gravel or sand and gravel	43 to 55
Loose gravel or sand and gravel	30
Compacted coarse sand (confined)	45
Loose coarse sand	20

Compact fine sand (Confined)	32
Loose fine sand	10
Sand with clay	20
Kankar	32
<p>Kankar or (kunkur) is a sedimentological term derived from Hindi (and ultimately Sanskrit) which is occasionally applied in both India and the United States to detrital or residual rolled, often nodular calcium carbonate formed in soils of semi-arid regions. It is used in the making of lime and of roads.</p>	



It is a reasonable question to ask what the depth of foundation has to do with the loading capacity of the soil. The same way as camels has wide feet to bare their load in loose sandy for good foundation to carry the load the width of foundation has to be wide enough based on the soil. The width of the walls are based on the blocks we use. The load transition through concrete is about 45degrees as it can be seen from the concrete compression tests fracture lines. Therefore, the depth of the foundation has to accommodate the width of the footing.



There are a number of methods available to test the load bearing capacity of the soil and InnoBlock can organise suitably qualified Civil Engineering to conduct a test and confirm the load carrying capacity of the soil.