



# DIGAT ME MATERIAL VENDI

## Siguria e trupit të digës dhe veprave të tjera që i shërbejnë asaj

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## HYRJE

### *INTRODUCTION*

Diga me material vendi është lloji i parë i digës ndërtuar nga njeriu dhe me zakonshëmja ndër digat ekzistuese dhe atyre në ndërtim.

*Embankment dam was the first type of dam built by man and it is the most common dam type both among existing dams and for construction of new dams*

Diga me e lartë, si dhe 70-80% e të gjitha digave, në bote janë me material vendi.

*It also forms the highest dam in the world and today 70-80% of all dams are embankment dams*

Ngjeshja e materilit në trupin e digës kryhet për të rritur ngurtësinë, minimizimin e uljeve gjatë dhe pas ndërtimit, dhe parandalimi i rreshkitjeve në bjetin e poshtëm dhe të sipërm.

*Principal purposes of compaction of fill materials are increasing stiffness, to minimize settlements during and after construction and increasing the strength, to prevent sliding shear failure of embankment*

## MENYRA E MBUSHJES DHE KAMPIONI EKSPERIMENTAL

### *METHODOLOGY AND EXPERIMENTAL SETUP*

Kampionet e perdorura ne terren jane me permasa 10mx20m ne te cilat eshte percaktuar sjellja e materialit, kendi i ferkimit te brendshem, densiteti dhe granulometria.

*A test field of 10m x 20m was prepared to find out the behavior, density angle of internal friction and the final sieve analyses of the material*

Per cdo kampion jane perdorur shtresa me trashesi 65,00cm dhe 85,00cm si dhe pjerresi skarpate 1,50 H : 1,00 V.

*There where tested layers with thickness of 65,00 cm and 85,00 cm respectively with embankment slope of 1,50 H : 1,00 V*

Pasi rruli kryen 4,6 dhe 8 kalime behen matjet per uljet ne secilen shtrese

*The settlements were measured and recorded for each point after 4, 6, 8 roller passing.*

**MENYRA E MBUSHJES DHE KAMPIONI EKSPERIMENTAL**  
*METHODOLOGY AND EXPERIMENTAL SETUP*



*Figure 3 (a) Transporting the rockfill material from the quarry to the trial embankment area, (b) and (c) Preparing the trial embankment layer of 65,00 and 85,00 cm respectively, (d) and (e) 4, 6 and 8 roller passing per each respective layer, (f) Recording settlement for each point via topographic measurements.*

**MENYRA E MBUSHJES DHE KAMPIONI EKSPERIMENTAL**  
*METHODOLOGY AND EXPERIMENTAL SETUP*



*Procedure of determining field density measured by water replacement method*

## REZULTATET DHE PERFUNDIMET

### *RESULTS AND DISCUSSIONS*

*Table 1 The average values of the parameters reached in three trial embankments*

	Number passes (no)	Maximum Settlement (mm)	Deformation modulus (Mpa)	Field density		Angle of internal friction (°)
				(Kg/m <sup>3</sup> )	(%)	
Trial embankment no.1	6	75	55,21	2034	99,22	44,30
Trial embankment no.2	6	74	52,48	1979	96,54	42,87
Trial embankment no.3	6	78	56,84	2042	99,61	45,20

## TRUPI I DIGES

*DAM BODY*



Qendrueshmeria

Errozioni i brenshem

Kontrolli i rrjedhjeve

Stabiliteti i shpateve

Zbrazja e  
menjehershme

**TRUPI I DIGES/Errozioni i brenshem**  
*DAM BODY/ INTERNAL EROSION OF THE EMBANKMENT*



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TRUPI I DIGES/Zbrazja e menjehershme  
*DAM BODY/RAPID DROPDOWN*



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SHKARKUESI SIPERFAQESOR  
*SPILLWAY*



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SHKARKUESI FUNDOR

*BOTTOM OUTLET*



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## VEPRA E MARRJES

*WATER INTAKE*



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**FALEMINDERIT**

*THANK YOU*