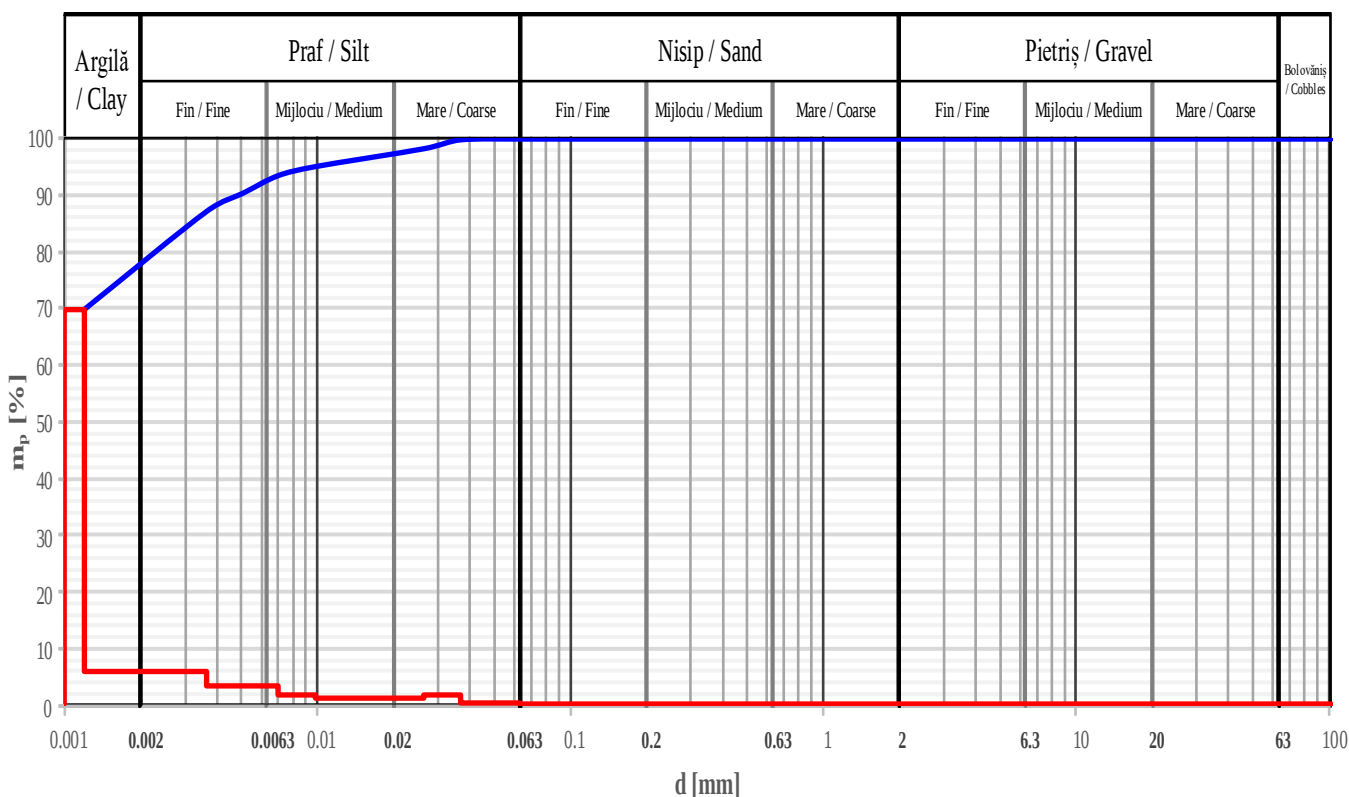


DCC-GEO-TEST CONSULT S.R.L.
LABORATOR DE ANALIZE ȘI ÎNCERCĂRI
ÎN CONSTRUCȚII - GRAD II
 Autorizație nr. 2940 din 15.08.2014/24.08.2018

Amplasament / Location: Reabilitarea liniei de cale ferata
 Roman – Iasi - Frontiera
 Forajul/Borehole: **POD 18**
 Proba/Sample: **PNT 1**
 Adancimea/Depth(m): **4,00-4,30**

Raport de incercare nr. / Test report no.60 247



Curba granulometrica / Granulometric curve

Identificarea și clasificarea pamanturilor SR EN ISO 14688/2-2018 / SR EN ISO 14688/2-2018 / STAS 1913/5-85											
Argila / Clay (CI)										cenușie	Un = #N/A
Conform SR EN ISO 14688/2-2005, la cerința beneficiarului	Pamant fin / Fine				Pamant grosier / Coarse						Pamant foarte grosier / Very
	Argila (CI)	Praful (Si)			Nisip (Sa)			Pietris (Gr)			Bolovanis (Co)
		Fin (fSi)	Mediu (mSi)	Mare (cSi)	Fin (fSa)	Mediu (mSa)	Mare (cSa)	Fin (fGr)	Mediu (mGr)	Mare (cGr)	
	76	24			0			0			0
	< 0,002	< 0,0063	< 0,02	< 0,063	< 0,2	< 0,63	< 2	< 6,3	< 20	< 63	< 200mm
%	76	16	5	3	0	0	0	0	0	0	0

CLASIFICAREA PAMANTURILOR /SR Pamant fin / Fine soil
 EN ISO 14688/2-2018 / SR EN ISO 14688/2-2018 #N/A

Executat de / Performed by:
 ing. Nina IOSIF

Nina IOSIF

Sef Laborator / Laboratory head: Constanta ANDREI

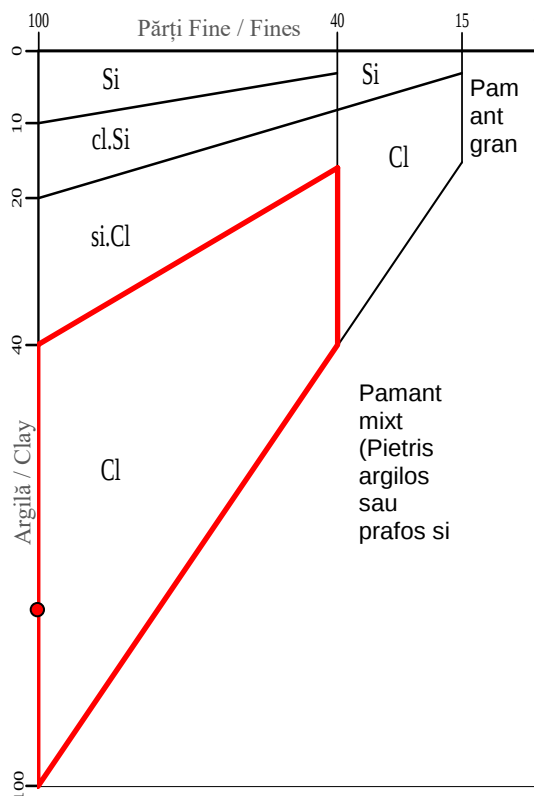
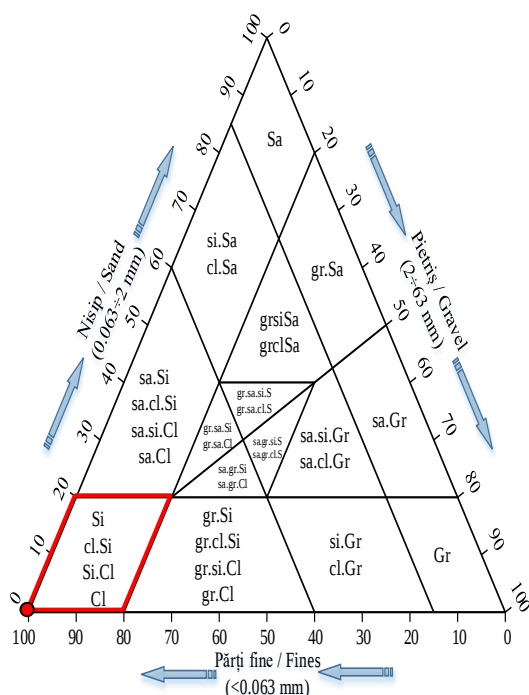


Data / Date: 07.12.2020

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	d (mm)	mp (%)
CERNERE	100	100,0
	100	100,0
	100	100,0
	100	100,0
	100	100,0
	100	100,0
	90	100,0
	63	100,0
	45	100,0
	31,5	100,0
	22,4	100,0
	16	100,0
	11,2	100,0
	5,6	100,0
SEDIMENTARE	3,15	100,0
	2	100,0
	0,5	100,0
	0,25	100,0
	0,10	100,0
	0,063	100,0
	0,063	#####
	0,037	99,86
	0,026	98,27
	0,019	97,22
	0,013	96,17
	0,010	95,11
	0,007	93,53
	0,005	90,37
	0,004	87,20
	0,003	81,41
	0,002	75,61
	0,001	69,81



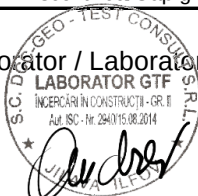
Clasificarea pamantului dupa SR EN ISO 14688-1:2018 / SR EN ISO 14688-2:2018

Tip pamant / Soil group	Tip fractiune		%	C _u (Un)	C _c	Forma curbei granulometrice / Shape of grading curve	C _u (Un)	C _c
Pamant fin / Fine	Argila	Cl	76	<3	< 1	Foarte uniforma /Very uniform	#N/A	#####
	Praf	Si	24			Uniforma / Uniform		
Pamant grosier / Coarse	Nisip	Sa	0	3---6	< 1	Uniformitate medie / Medium uniformity		
	Pietris	Gr	0	6---15	< 1	Neuniforma / Non-uniform		
Pamant foarte grosier / Very coarse	Bolovanis	Co		>15	1---3	Discontinua/Gap graded		
				>15	<0,5			

Executat de / Performed by :
 ing. Nina IOSIF

Nina IOSIF

Sef Laborator / Laboratory head: Constanta ANDREI



Raport de incercare nr. / Test report no.60 248

**DETERMINAREA LIMITELOR DE PLASTICITATE /
DETERMINATION OF ATTEBERG LIMITS
STAS 1913/4-86**

Nr. de caderi ale cupei (N)	25	UMIDITATE NATURALA NATURAL MOISTURE STAS 1913/1-82			LIMITA DE CURGERE LIQUID LIMIT W_L %				LIMITA DE FRAMANTARE PLASTIC LIMIT W_P %		
Adancimea de patrundere a conului (S) mm	10				Metoda cu cupa						
					46	34	23	16			
PROBA UMEDA + TARA A (gr)		150,00			31,13	33,11	30,97	33,70	17,68	17,86	18,51
PROBA USCATA + TARA B (gr)		109,15			21,95	23,34	22,03	23,71	16,71	16,83	17,39
TARA C (gr)					11,79	12,81	12,57	13,38	13,24	13,13	13,41
A - B		40,85			9,17	9,76	8,94	9,99	0,97	1,03	1,13
B - C		109,15			10,16	10,53	9,46	10,33	3,47	3,70	3,98
$W(\%) = (A-B)/(B-C)*100$		37,43			90,25	92,70	94,48	96,66	28,12	27,98	28,35
$W(\%)$ MEDIU		37,43			94,16				28,15		

DESCRIEREA PROBEI /
DESCRIPTION OF THE SOIL:

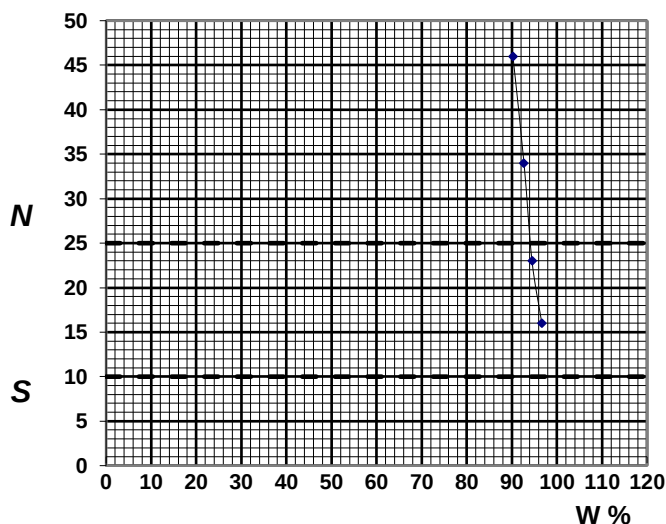
Argila grasa cenusie cu FeO plastic vartoasa / stiff
consistency

SR EN ISO 14688/1/2-2018

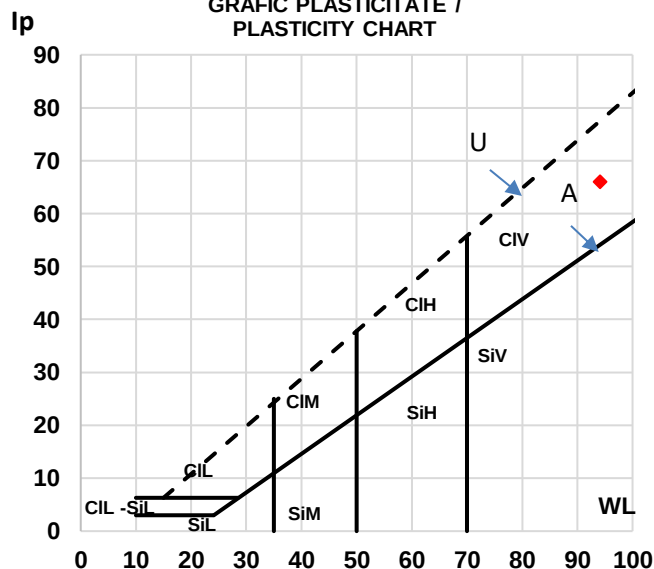
Pamant fin cu plasticitate foarte mare / Fine soil, very high plasticity

CIV

GRAFICUL LIMITEI SUPERIOARE DE PLASTICITATE
UPPER LIMIT OF PLASTICITY CHART



GRAFIC PLASTICITATE /
PLASTICITY CHART



SR EN ISO 14688/2-2018

LIMITA DE FRAMANTARE / PLASTIC LIMIT	$W_P =$	28,15	%	Tip pamant / Type of Soil		Plasticitate / Plasticity		Limita de curgere / Liquid limit
UMIDIT. NATUR. / NATURAL MOISTURE	$W =$	37,43	%	Cl	Clay	Low	redusa	<35
LIMITA DE CURGERE / LIQUID LIMIT	$W_L =$	94,16	%	Si	Silt	Medium	medie	35----50
INDICE DE PLASTICIT./PLASTICITY INDEX	$I_P = W_L - W_P$	66,01	%			Heigh	mare	50----70
INDICE DE CONSISTENȚĂ / CONSISTENCY INDEX	$I_C = (W_L - W) / I_P$	0,86				Very heigh	foarte mare	>70
INDICE DE LICHIDITATE/ LIQUIDITY INDEX	$I_L = (W - W_P) / I_P$	0,14				O	organic	

Executat de / Performed by: Laborant Emilia Dumitru

Data / Date: 07.12.2020

COD PROBA 60

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Sef Laborator / Laboratory head: Constanta ANDREI

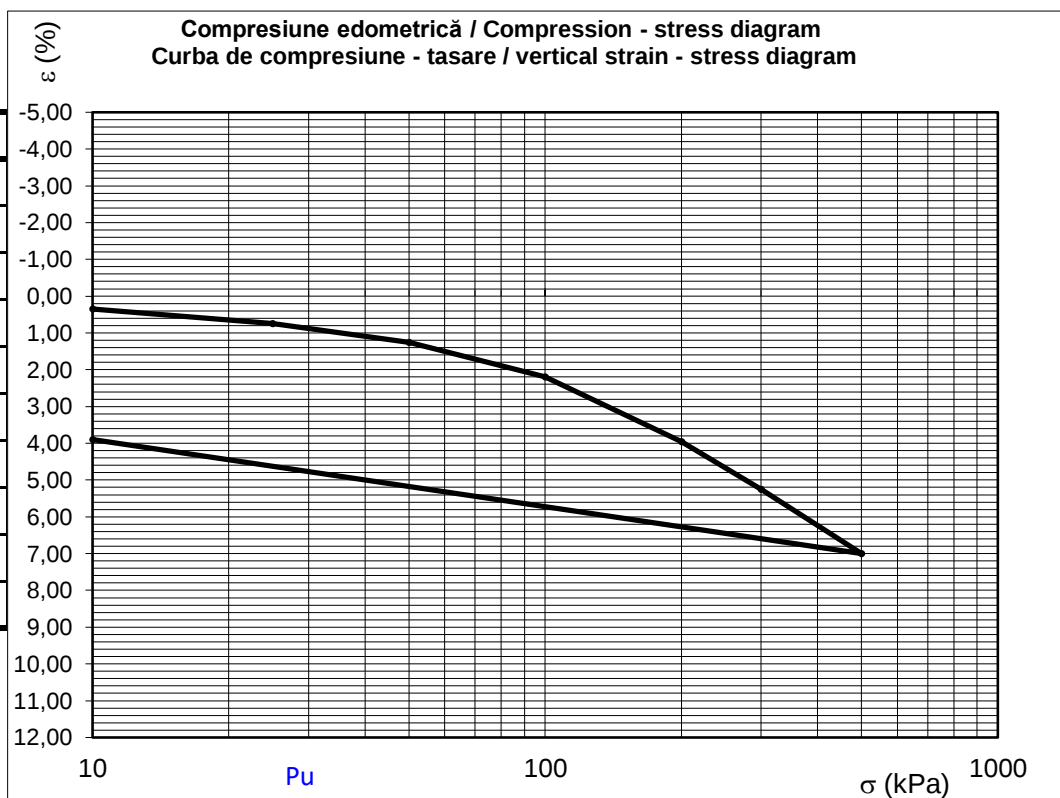
Raport de incercare nr. / Test report no.60 249

DETERMINAREA COMPRESIBILITATII PAMANTURILOR PRIN INCERCAREA IN EDMETRU

INCREMENTAL LOADING OEDOMETER TEST

STAS 8942/1-89

Indici fizici	INITIAL	FINAL
$m_u(g)$	139,66	135,58
$m_d(g)$	100,54	100,54
$V(cm^3)$	75,86	70,00
$w(%)$	38,91	34,85
$r(g/cm^3)$	1,84	1,94
$r_d(g/cm^3)$	1,33	1,44
$r_s(g/cm^3)$	2,72	2,72
$n(%)$	51,28	47,19
$e(-)$	1,052	0,894
$S(-)$	1,00	1,00



s (kPa)	e(%)	M (kPa)	mv(1/kPa)	av(1/kPa)
10	0,35			
25	0,75			
50	1,25			
100	2,20			
200	3,95			
300	5,25	7692,3	1,30E-04	2,67E-04
500	7,00	11428,6	8,75E-05	1,80E-04
10	3,90			

DESCRIEREA PROBEI /
DESCRIPTION OF THE SOIL:

Argila grasa cenusie cu FeO

plastic vartoasa / stiff consistency

Executat de / Performed by:

ing. Nina IOSIF

COD PROBA 60 249

Data / Date: 07.12.2020

SEF LABORATOR / LABORATORY HEAD

Constanta ANDRE

