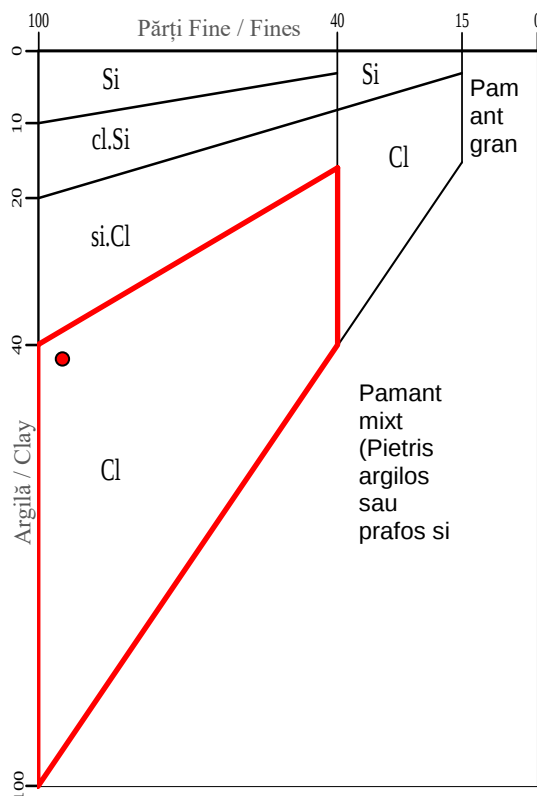
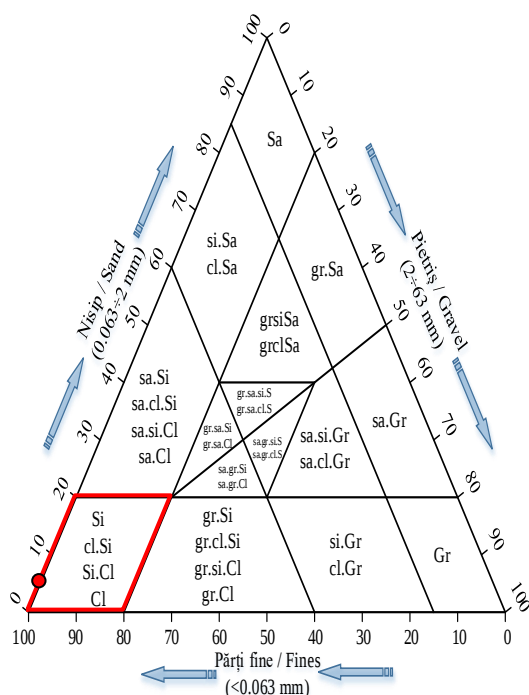


Raport de incercare nr. / Test report no.60 262

	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	99,4
	0,10	98,5
	0,063	95,3
	0,063	95,26
	0,039	91,88
	0,028	88,72
	0,020	84,50
	0,015	80,29
	0,011	76,07
	0,008	69,74
	0,006	61,84
	0,004	53,93
	0,003	48,66
	0,002	43,39
	0,001	38,12



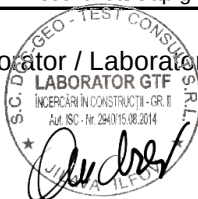
Clasificarea pamantului dupa SR EN ISO 14688-1:2018 / SR EN ISO 14688-2:2018

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	42	<3	< 1	Foarte uniforma / Very uniform	#N/A	#####
	Praf	Si	53			Uniforma / Uniform		
Pamant grosier / Coarse	Nisip	Sa	5	3---6	< 1	Uniformitate medie / Medium uniformity		
	Pietris	Gr	0	6---15	< 1	Discontinua / Gap graded		
Pamant foarte grosier / Very coarse	Bolovanis	Co		>15	1---3	Neuniforma / Non-uniform	#N/A	#####
				>15	<0,5	Discontinua / Gap graded		

Executat de / Performed by :
 ing. Nina IOSIF

Nina IOSIF

Sef Laborator / Laboratory head: Constanta ANDREI



Raport de incercare nr. / Test report no.60 263

**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						
					44	33	22	15			
PROBA UMEDA + TARA A (gr)		150,00			32,16	34,00	32,35	34,82	20,75	20,90	21,53
PROBA USCATA + TARA B (gr)		125,05			25,85	27,24	25,93	27,61	20,06	20,18	20,74
TARA C (gr)					14,85	15,87	15,63	16,44	16,30	16,19	16,47
A - B		24,95			6,31	6,76	6,42	7,20	0,69	0,73	0,80
B - C		125,05			11,00	11,37	10,30	11,17	3,75	3,98	4,26
$W(\%) = (A-B)/(B-C)*100$		19,95			57,32	59,44	62,29	64,47	18,43	18,29	18,66
$W(\%)$ MEDIU		19,95			61,51				18,46		

DESCRIEREA PROBEI /
DESCRIPTION OF THE SOIL:

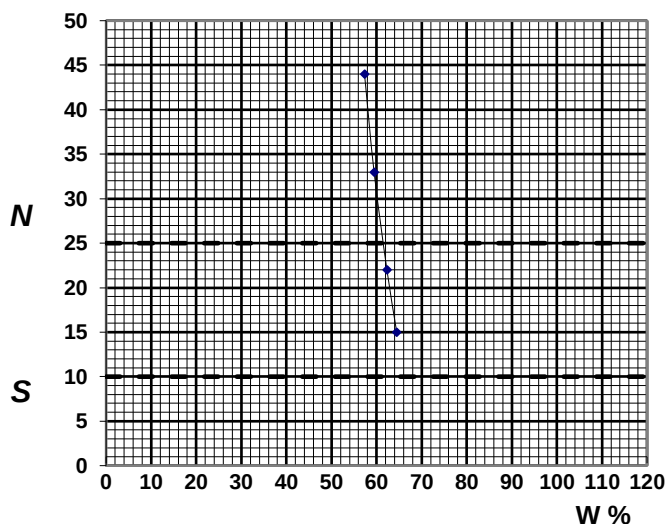
Argila cenusie plastic vartoasa / stiff
consistency

SR EN ISO 14688/1/2-2018

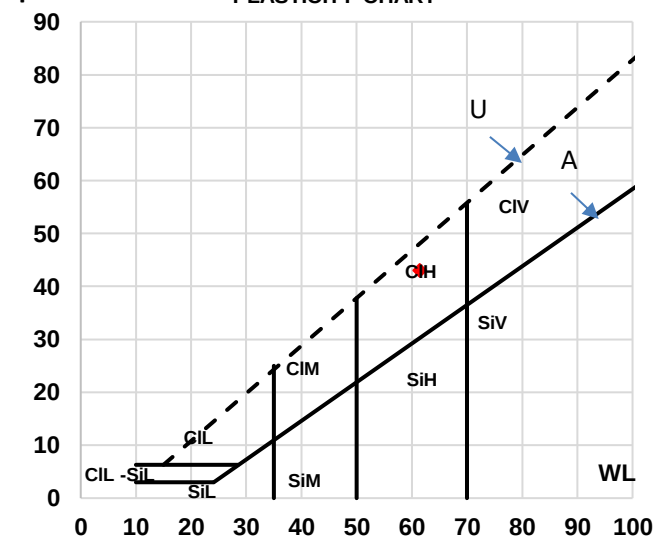
Pamant fin cu plasticitate mare / Fine soil, heigh plasticity

CIH

GRAFICUL LIMITEI SUPERIOARE DE PLASTICITATE
UPPER LIMIT OF PLASTICITY CHART



GRAFIC PLASTICITATE /
PLASTICITY CHART



SR EN ISO 14688/2-2018

LIMITA DE FRĂMANTARE / PLASTIC LIMIT	$W_P =$	18,46	%	Tip pamant / Type of Soil		Plasticitate / Plasticity		Limita de curgere / Liquid limit
UMIDIT. NATUR. / NATURAL MOISTURE	$W =$	19,95	%	Cl	Clay	Low	redusa	<35
LIMITA DE CURGERE / LIQUID LIMIT	$W_L =$	61,51	%	Si	Silt	Medium	medie	35----50
INDICE DE PLASTICIT./PLASTICITY INDEX	$I_P = W_L - W_P$	43,05	%			Heigh	mare	50----70
INDICE DE CONSISTENȚĂ / CONSISTENCY INDEX	$I_C = (W_L - W) / I_P$	0,97				Very heigh	foarte mare	>70
INDICE DE LICHIDITATE/ LIQUIDITY INDEX	$I_L = (W - W_P) / I_P$	0,03				O	organic	

Executat de / Performed by: Laborant Emilia Dumitru

Data / Date: 07.12.2020

COD PROBA 60

263

Sef Laborator / Laboratory head: Constanta ANDREI

Raport de incercare nr. / Test report no.60 264

DETERMINAREA REZISTENȚEI PAMANTURILOR LA FORFECARE PRIN ÎNCERCAREA DE

FORFECARE DIRECTĂ / DIRECT SHEAR TESTS

STAS 8942/2-82

TEST DE FORFECARE DIRECTĂ NE CONSOLIDATĂ NEDRENATĂ (FUU) /
UNCONSOLIDATED UNDRAINED DIRECT SHEAR TEST

viteza: 1.0
mm/min

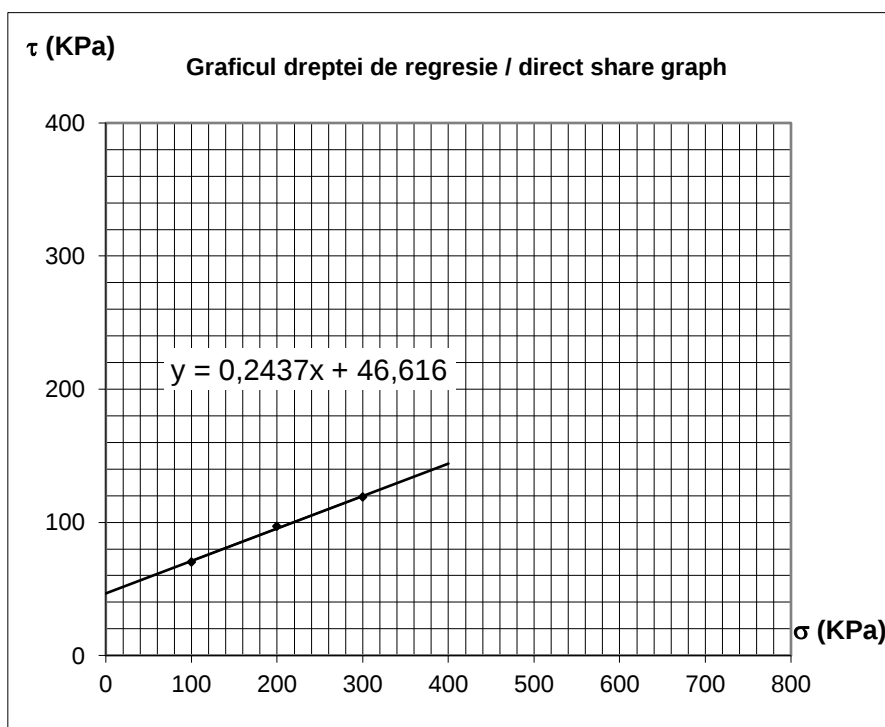
DESCRIEREA PROBEI /
DESCRIPTION OF SOIL: :

Argila cenușie

plastic vartoasa / stiff
consistency

INDICI FIZICI AI MATERIALULUI / PHYSICAL INDEX OF SOIL	EPRUVETA 1		EPRUVETA 2		EPRUVETA 3		MEDIA
	INIȚIAL	FINAL	INIȚIAL	FINAL	INIȚIAL	FINAL	INIȚIAL
Umiditatea w %	20,12	21,79	20,97	19,76	21,66	21,99	20,92
Densitatea în stare umedă r (g/cm^3)	2,15		2,16		2,17		2,16
Densitatea în stare uscată r_d (g/cm^3)	1,79		1,78		1,78		1,79
Densitatea scheletului r_s (g/cm^3)	2,72		2,72		2,72		2,72
Porozitatea $n = (1 - \rho_d / \rho_s) \cdot 100$ %	34,13		34,38		34,53		34,35
Indicele porilor $e = n / (1 - n)$	0,52		0,52		0,53		0,52
Gradul de Saturație $S_r = \rho_s \cdot w / (e \cdot \rho_w \cdot 100)$	1,00		1,00		1,00		1,00

SR EN ISO 14688/2-2018:



Natural /
Natural soil

Valori obținute /
Values obtained:

$\phi = 13^\circ 42'$
 $c = 46,6 \text{ kPa}$



SEF LABORATOR
LABORATORY HEAD

Constanta ANDREI

VALORILE MAXIME ALE EFORTURILOR DE RUPERE /
APPLIED NORMAL STRESS, MAXIMUM SHEAR STRESS

	epruveta 1	epruveta 2	epruveta 3
σ (kPa)	100	200	300
τ (kPa)	70	97	119

Data / Date: 07.12.2020

COD PROBA 60 264

Executat de/Performed by: ing.geol.