Test Performed By: Dr. Syed Asad Ali Gillani

Muhammad Imran Khan
Director (Coord) Central Zone,
NHA, Lahore.
(Fiber Glass Profile Guard Rail for Highway Safety)

Client Reference: Gen/Dir(CZ)/NHA/2024/631 Dated: 05-11-2024
SOM Laboratory Reference: CED/SOM/181(Page-1/1) Dated: 11-11-2024
Test: Tensile Test **Specification:** AASHTO-M180
Sample Type: Fiber Glass Profile Guard Rail

Tensile Test

Sample Type	Size of Sample (mm)	Ultimate Load (kN)	Ultimate Stress (MPa)
Guard Rail	12.2 x 5.0	25.20	413.11
	12.4 x 5.0	20.50	330.65
Guard Rail	12.0 x 5.0	27.0	450.0
	12.2 x 5.0	19.70	322.95

Note: Please always confirm the results of above report on web: www.uet-civil.edu.pk

Engr. Farrukh Alvi **Test Performed By:** **Dr. /Engr.** Asad Ali Gillani

Dy. General Manager Works.Habib Rafiq Engineering (Pvt.) Ltd.(101 Tower,Lahore)

Client Reference: HRLE/SKG/2024/Kamran/172-A/Re-Test **SOM Lab Ref:** 182 (P-1/1)

Dated: 11-11-2024 **Dated:** 11-11-2024

Test: Tension Test **Test Specification:** ASTM-A-615

Guage Length: 200 mm **Sample Type:** Deformed Bar (Kamran Steel)

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	kg/m	mm	mm	mm^2	mm^2	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	4.030	25	25.56	491	513	259.60	355.20	529	507	723	693	32.5	200	16.3	
2	4.021	25	25.54	491	512	273.00	373.00	556	533	760	729	30.0	200	15.0	
3	0.880	12	11.95	113	112	57.00	76.50	504	509	677	683	22.5	200	11.3	
4	0.884	12	11.97	113	113	54.50	75.20	482	485	665	669	25.0	200	12.5	
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Witnessed By: M. Irfan (QC Engr/HRL), M. Akram(101 Group)

BEND TEST:

25mm	Sample bend through 180 degrees Satisfactorily without any crack
12mm	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Six Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Waqas Ahmed Ghumman,PM **Test Performed By:** **Dr. /Engr.** Asad Ali Gillani

High-Q Constructions Lhr.(Const Of High-Q Mall at 3-A Gulberg II Lahore)

Client Reference: QC/HQ/CIVIL/246 **Dated:** 11-11-2024

SOM Lab Ref: CED/SOM/184 (Page-1/1) **Dated:** 11-11-2024

Test: Tension Test & Bend Test **Test Specification:** ASTM-A 706

Sample Type: Deformed Bar **Gauge Length:** 200 mm

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	kg/m	mm	mm	mm^2	mm^2	kN	kN	MPa	MPa	MPa	MPa	mm	mm	%	
1	2.474	20	20.03	314	315	149.50	203.20	476	475	647	646	37.5	200	18.8	
2	2.480	20	20.06	314	316	157.00	208.70	500	497	664	661	37.5	200	18.8	
3	0.887	12	11.99	113	113	55.20	72.50	488	489	641	642	35.0	200	17.5	
4	0.893	12	12.04	113	114	53.50	71.50	473	471	632	629	40.0	200	20.0	
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BEND TEST:

20mm	Sample bend through 180 degrees Satisfactorily without any crack
12mm	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Six Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Tajammal Hussain Riaz, RE **Test Performed By:** **Dr. /Engr.** Asad Ali Gillani
ACE-Arts (Consultants) UAEET Sambrial,Sialkot.(Estb Of UAEET Sambrial,Sialkot)

Client Reference: ER/UAEET/ACE/ME/2024/43 **SOM Lab Ref:** 179 (Page-1/1)
Dated: 08-11-2024 **Dated:** 08-11-2024

Test: Tension Test & Bend Test **Test Specification:** ASTM-A-615
Gauge Length: 8 inch **Sample Type:** Def Bar (FF Steel)(H # 141)

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.491	6	0.747	0.44	0.438	15.37	21.00	77050	77400	105260	105740	1.10	8.0	13.8	
2	1.487	6	0.746	0.44	0.437	15.29	20.64	76640	77170	103470	104180	1.00	8.0	12.5	
3	1.476	6	0.743	0.44	0.434	15.26	21.02	76490	77550	105360	106820	1.00	8.0	12.5	
4	1.488	6	0.746	0.44	0.437	15.35	20.95	76950	77480	105000	105720	1.00	8.0	12.5	
5	0.667	4	0.500	0.20	0.196	6.14	8.36	67670	69050	92180	94060	1.30	8.0	16.3	
6	0.673	4	0.502	0.20	0.198	6.12	8.36	67450	68130	92180	93110	1.20	8.0	15.0	
7	0.672	4	0.501	0.20	0.197	6.27	8.66	69130	70190	95550	97000	1.20	8.0	15.0	
8	0.670	4	0.501	0.20	0.197	6.07	8.43	66890	67900	92960	94380	1.10	8.0	13.8	
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BEND TEST:

# 6	Sample bend through 180 degrees Satisfactorily without any crack
# 6	Sample bend through 180 degrees Satisfactorily without any crack
# 4	Sample bend through 180 degrees Satisfactorily without any crack
# 4	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Twelve Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Allah Ditta Shakir, XEN **Test Performed By:** **Dr. /Engr.** Asad Ali Gillani

GE(Army)-II Slk.(Upgrd of Kote 14 Sign Bn,HQ 8 Div at Slk)

Client Reference: 6673/17/E6 **SOM Lab Ref:** 180 (Page-1a/1)

Dated: 31-10-2024 **Dated:** 11-11-2024

Test: Tension Test & Bend Test **Test Specification:** ASTM-A-615

Gauge Length: 8 inch **Sample Type:** Deformed Bar

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.501	6	0.749	0.44	0.441	14.51	20.08	72710	72550	100660	100430	1.40	8.0	17.5	
2	1.494	6	0.748	0.44	0.439	14.68	20.00	73580	73750	100250	100480	1.40	8.0	17.5	
3	1.505	6	0.750	0.44	0.442	14.78	20.29	74090	73750	101680	101220	1.40	8.0	17.5	
4	1.049	5	0.626	0.31	0.308	10.19	13.58	72520	72990	96600	97230	1.30	8.0	16.3	
5	1.049	5	0.626	0.31	0.308	10.16	13.51	72310	72780	96090	96720	1.30	8.0	16.3	
6	1.044	5	0.625	0.31	0.307	10.04	13.51	71440	72130	96090	97030	1.10	8.0	13.8	
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BEND TEST:

Sr # (1-3)	Sample bend through 180 degrees Satisfactorily without any crack
Sr # (4-6)	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Twelve Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Allah Ditta Shakir, XEN **Test Performed By:** **Dr. /Engr.** Asad Ali Gillani

GE(Army)-II Slk.(Upgrd of Kote 14 Sign Bn,HQ 8 Div at Slk)

Client Reference: 6673/17/E6 **SOM Lab Ref:** 180 (Page-1b/1)

Dated: 31-10-2024 **Dated:** 11-11-2024

Test: Tension Test & Bend Test **Test Specification:** ASTM-A-615

Gauge Length: 8 inch **Sample Type:** Deformed Bar

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	0.672	4	0.501	0.20	0.197	6.34	8.63	69920	70990	95210	96660	1.30	8.0	16.3	
2	0.672	4	0.501	0.20	0.197	6.27	8.56	69130	70190	94420	95860	1.20	8.0	15.0	
3	0.665	4	0.498	0.20	0.195	6.44	8.82	71040	72870	97230	99730	1.20	8.0	15.0	
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BEND TEST:

Sr # (1-3)	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Six Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Engr. Haseeb Afzal **Test Performed By:** **Dr. /Engr.** Asad ali Gillani

PM HMB Developers Pvt Ltd. Lahore (Commercial Tower, FTC Lahore)

Client Reference: HMBDPL/S.O/11/24/140(LHR) **SOM Lab Ref:** 183 (Page-1/1)

Dated: 11-11-2024 **Dated:** 11-11-2024

Test: Tension Test & Bend Test **Test Specification:** ASTM-A-615

Gauge Length: 8 inch **Sample Type:** Deformed Bar (Bility # 1102)

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.678	8	1.001	0.79	0.787	26.71	35.85	74560	74850	100090	100470	1.50	8.0	18.8	
2	2.685	8	1.002	0.79	0.789	25.69	35.17	71720	71810	98180	98310	1.50	8.0	18.8	
3	0.677	4	0.503	0.20	0.199	6.54	8.84	72170	72530	97460	97950	1.20	8.0	15.0	
4	0.668	4	0.500	0.20	0.196	6.52	8.51	71940	73410	93860	95780	1.10	8.0	13.8	
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BEND TEST:

# 8	Sample bend through 180 degrees Satisfactorily without any crack
# 4	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Six Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Engr. Tanveer Afzal **Test Performed By:** **Dr. /Engr.** Wasim Abbas

General Manager-Blue Bricks. (Grand Masjid at Blue Town Sapphire Lahore)

Client Reference: BTS/Lab/001125 **SOM Lab Ref:** 185 (Page-1/1)

Dated: 11-11-2024 **Dated:** 11-11-2024

Test: Tension Test & Bend Test **Test Specification:** ASTM-A-615

Gauge Length: 8 inch **Sample Type:** Deformed Bar (Moiz Steel)

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.762	8	1.017	0.79	0.812	27.54	37.02	76900	74810	103360	100560	1.50	8.0	18.8	
2	1.532	6	0.757	0.44	0.450	13.30	19.22	66680	65200	96320	94170	1.30	8.0	16.3	
3	1.040	5	0.624	0.31	0.306	10.27	13.48	73030	73990	95880	97130	1.40	8.0	17.5	
4	0.672	4	0.501	0.20	0.197	5.98	7.36	65990	66990	81160	82400	1.20	8.0	15.0	
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BEND TEST:

# 8	Sample bend through 180 degrees Satisfactorily without any crack
# 6	Sample bend through 180 degrees Satisfactorily without any crack
# 5	Sample bend through 180 degrees Satisfactorily without any crack
# 4	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Eight Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Allied Bank **Test Performed By:** **Dr. /Engr.** Wasim Abbas

Unit Head PMO ABL-UML-P#199-200.(Const Of ABL Upper Mall Lahore Plot No 199,200)

Client Reference: ABL-UML-AMC-QAQC-97 **SOM Lab Ref:** 186 (Page-1/1)

Dated: 11-11-2024 **Dated:** 11-11-2024

Test: Tension Test & Bend Test **Test Specification:** ASTM-A-615

Gauge Length: 8 inch **Sample Type:** Deformed Bar (FF Steel)

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.648	8	0.995	0.79	0.778	28.61	36.80	79880	81120	102730	104320	1.70	8.0	21.3	
2	2.614	8	0.989	0.79	0.768	25.25	33.44	70490	72510	93340	96020	1.30	8.0	16.3	
3	1.482	6	0.745	0.44	0.436	14.65	19.24	73430	74100	96420	97300	1.30	8.0	16.3	
4	1.469	6	0.742	0.44	0.432	14.44	18.83	72400	73740	94370	96120	1.20	8.0	15.0	
5	1.044	5	0.625	0.31	0.307	10.27	14.07	73030	73750	100080	101060	1.40	8.0	17.5	
6	1.042	5	0.624	0.31	0.306	10.16	13.97	72310	73250	99360	100650	1.20	8.0	15.0	
7	0.672	4	0.501	0.20	0.197	6.07	8.33	66890	67900	91840	93240	1.20	8.0	15.0	
8	0.677	4	0.503	0.20	0.199	6.54	8.56	72170	72530	94420	94900	1.20	8.0	15.0	
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BEND TEST:

# 8	Sample bend through 180 degrees Satisfactorily without any crack
# 6	Sample bend through 180 degrees Satisfactorily without any crack
# 5	Sample bend through 180 degrees Satisfactorily without any crack
# 4	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Twelve Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Kakar **Test Performed By:** **Dr. /Engr.** Asad Ali Gillani

Construction Company Quetta.(Const Of Bridges at Dirgi Shabozai (N-70) To Taunsa Sharif,Pkg 7/8)

Client Reference: 457/K **SOM Lab Ref:** 187 (Page-1/1)

Dated: 31-10-2024 **Dated:** 11-11-2024

Test: Tension Test & Bend Test **Test Specification:** ASTM-A-615

Gauge Length: 8 inch **Sample Type:** Deformed Bar

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	2.665	8	0.998	0.79	0.783	26.45	35.42	73850	74510	98890	99780	1.50	8.0	18.8	
2	1.501	6	0.749	0.44	0.441	14.60	19.27	73170	73000	96570	96350	1.30	8.0	16.3	
3	0.669	4	0.501	0.20	0.197	6.34	8.66	69920	70990	95550	97000	1.20	8.0	15.0	
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BEND TEST:

# 8	Sample bend through 180 degrees Satisfactorily without any crack
# 6	Sample bend through 180 degrees Satisfactorily without any crack
# 4	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Six Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Resident Engineer **Test Performed By:** **Dr. /Engr.** Asad Ali Gillani

Al-Imam Enterprises.(Const Of Zonal Office Building of Bank Al Habib Ltd.Main Boulevard Gulberg,Lhr)

Client Reference: Alm/BAHL/1111/1111 **SOM Lab Ref:** 188 (Page-1/2)

Dated: 11-11-2024 **Dated:** 11-11-2024

Test: Tension Test & Bend Test **Test Specification:** ASTM-A-615

Gauge Length: 8 inch **Sample Type:** Deformed Bar (Mughal Steel)

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.487	6	0.746	0.44	0.437	14.44	18.57	72400	72900	93100	93740	1.40	8.0	17.5	
2	1.481	6	0.744	0.44	0.435	14.22	18.06	71280	72100	90540	91580	1.30	8.0	16.3	
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BEND TEST:

# 6	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Three Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Resident Engineer **Test Performed By:** **Dr. /Engr.** Asad Ali Gillani

Al-Imam Enterprises.(Const Of Zonal Office Building of Bank Al Habib Ltd.Main Boulevard Gulberg,Lhr)

Client Reference: AIM/BAHL/1111/1111 **SOM Lab Ref:** 188 (Page-2/2)

Dated: 11-11-2024 **Dated:** 11-11-2024

Test: Tension Test & Bend Test **Test Specification:** ASTM-A-615

Gauge Length: 8 inch **Sample Type:** Deformed Bar (Mughal Steel)

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.038	5	0.623	0.31	0.305	10.55	14.19	75060	76290	100950	102610	1.20	8.0	15.0	
2	1.043	5	0.625	0.31	0.307	10.45	13.25	74340	75060	94280	95200	1.30	8.0	16.3	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

BEND TEST:

# 3	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Three Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk

Awais Nazir, XEN **Test Performed By:** **Dr. /Engr.** Wasim Abbas

GE(Army)-II LRC.(Const Of 1 x 64 Men SM BK NO.1 at Lhr Cantt)

Client Reference: 6003/147/E-6 **SOM Lab Ref:** 189 (Page-1/1)

Dated: 17-05-2024 **Dated:** 11-11-2024

Test: Tension Test & Bend Test **Test Specification:** ASTM-A-615

Gauge Length: 8 inch **Sample Type:** Deformed Bar

S.No.	Weight	Dia.		Area		Yield Load	Ultimate Load	Yield Stress		Ult. Stress		Elongation	Gauge Length	%age Elongation	Remarks
		Nominal	Calculated	Nominal	Calculated			(according to nominal area)	(according to measured area)	(according to nominal area)	(according to measured area)				
	lb/ft	#	in	in^2	in^2	Tons	Tons	psi	psi	psi	psi	in	in	%	
1	1.474	6	0.743	0.44	0.433	14.48	18.20	72560	73730	91210	92680	1.30	8.0	16.3	
2	1.479	6	0.744	0.44	0.435	14.55	18.25	72910	73750	91460	92510	1.40	8.0	17.5	
3	0.938	5	0.593	0.31	0.276	7.82	11.90	55630	62480	84630	95060	1.30	8.0	16.3	
4	0.952	5	0.597	0.31	0.280	8.12	12.33	57800	64000	87750	97150	1.20	8.0	15.0	
5	0.668	4	0.500	0.20	0.196	6.52	8.36	71940	73410	92180	94060	1.10	8.0	13.8	
6	0.665	4	0.498	0.20	0.195	6.49	8.26	71610	73440	91050	93390	1.10	8.0	13.8	
7	1.359	6	0.713	0.44	0.399	10.32	15.19	51710	57020	76130	83960	1.50	8.0	18.8	
8	1.335	6	0.706	0.44	0.392	8.12	11.34	40730	45710	56820	63780	1.90	8.0	23.8	
9	0.523	4	0.443	0.20	0.154	4.40	6.57	48560	63070	72510	94160	1.40	8.0	17.5	
10	0.525	4	0.443	0.20	0.154	4.51	7.19	49690	64530	79250	102920	1.50	8.0	18.8	

BEND TEST:

# 6	Sample bend through 180 degrees Satisfactorily without any crack
# 5	Sample bend through 180 degrees Satisfactorily without any crack
# 4	Sample bend through 180 degrees Satisfactorily without any crack
# 6	Sample bend through 180 degrees Satisfactorily without any crack
# 4	Sample bend through 180 degrees Satisfactorily without any crack

Note:-

Only Fifteen Samples Received and Tested

Note: Please always confirm the results of above report on web www.uet-civil.edu.pk