

Arfan ul Haq

Test Performed By:

Dr. /Engr.

S. Asad Ali Gillani

Resident Engineer, NESPAK - ZEERUK (JV) CPEC (Western Route), Package-II, Isakhel

Client Reference: RE/NESPAK/P-2B/CPEC-WR/1245

Dated: 02-07-2020

SOM Lab Ref: CED/SOM/2927(Page-1/1)

Dated: 08-09-2020

Test: Tension Test & Bend Test

Test Specification: ASTM-A 615

Sample Type: Deformed Bar(Moiz Steel)

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	2.202	20	18.92	314	281	140.70	180.20	448	501	574	642	30.0	200	15.0	
2	2.204	20	18.91	314	281	140.50	180.50	447	501	575	643	30.0	200	15.0	
3	0.996	12	12.71	113	127	69.70	85.70	616	550	758	676	25.0	200	12.5	
4	0.976	12	12.58	113	124	66.70	80.50	590	537	712	648	30.0	200	15.0	
5	1.000	12	12.74	113	127	68.70	85.20	607	540	753	669	27.5	200	13.8	
6	0.972	12	12.56	113	124	66.50	80.70	588	537	714	652	30.0	200	15.0	
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BEND TEST:

20mm	Sample bend through 180 degrees Satisfactorily without any crack	Note:- Only Nine Samples Received and Tested
12mm	Sample bend through 180 degrees Satisfactorily without any crack	
12mm	Sample bend through 180 degrees Satisfactorily without any crack	

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

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Resident Engineer, NESPAK - ZEERUK (JV) CPEC (Western Route), Package-II, Isakhel

Test Performed By:

Dr. /Engr.

S. Asad Ali
Gillani

Client Reference: RE/NESPAK/P-2B/CPEC-WR/1245

Dated: 02-07-2020

Test: Tension Test & Bend Test

Gauge Length: 8 inch

Test Specification:

Sample Type:

SOM Lab

Ref: 2927(Page-1/1)

Dated: 08-09-2020

ASTM-A-615

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	1.502	6	0.749	0.44	0.441	14.09	19.98	70620	70460	100150	99920	1.30	8.0	16.3	
2	1.520	6	0.754	0.44	0.447	14.24	19.90	71380	70260	99740	98180	1.60	8.0	20.0	
3	1.051	5	0.627	0.31	0.309	10.21	13.76	72670	72900	97910	98220	1.20	8.0	15.0	
4	1.048	5	0.626	0.31	0.308	10.24	13.86	72890	73360	98630	99270	1.30	8.0	16.3	
5	0.669	4	0.501	0.20	0.197	6.60	8.94	72730	73840	98580	100080	1.30	8.0	16.3	
6	0.676	4	0.503	0.20	0.199	6.65	9.02	73290	73660	99480	99980	1.20	8.0	15.0	
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BEND TEST:

# 6	Sample bend through 180 degrees Satisfactorily without any crack	Note:- Only Nine Samples Received and Tested
# 5	Sample bend through 180 degrees Satisfactorily without any crack	
# 4	Sample bend through 180 degrees Satisfactorily without any crack	

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

Sub Divisional Officer
Highway Sub Division, Sialkot

Test Performed By: Dr. /Engr. S Asad Ali Gillani

Client Reference: 323/S

SOM Lab

Ref: 2928(Page-1/1)

Dated: 07-09-2020

Dated: 08-09-2020

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	1.495	6	0.748	0.44	0.439	12.39	18.52	62080	62220	92840	93050	1.40	8.0	17.5	
2	1.501	6	0.749	0.44	0.441	12.20	18.50	61160	61020	92740	92530	1.40	8.0	17.5	
3	0.637	4	0.488	0.20	0.187	4.99	7.21	55080	58910	79470	85000	1.60	8.0	20.0	
4	0.652	4	0.494	0.20	0.192	4.84	7.05	53400	55620	77790	81030	1.50	8.0	18.8	
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BEND TEST:

# 6	Sample bend through 180 degrees Satisfactorily without any crack	Note:- Only Six Samples Received and Tested
# 4	Sample bend through 180 degrees Satisfactorily without any crack	

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

Deputy Director, SEC-III (Package-I)
 LOLMTP, LDA Lahore

Test Performed By: Dr. /Engr. M. Irfan Ul Hassan

Client Reference: DD/SEC-III/PKG/LOLMTP/LDA/79

SOM Lab Ref: 2930 (Page-2/2)

Dated: 22-06-2020

Dated: 08-09-2020

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	0.682	4	0.505	0.20	0.200	5.56	9.07	61270	61270	100050	100050	1.30	8.0	16.3	
2	0.687	4	0.507	0.20	0.202	5.40	7.75	59580	58990	85430	84590	1.30	8.0	16.3	
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BEND TEST:

# 4	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

Deputy Director, SEC-III (Package-I)
 LOLMTP, LDA Lahore

Test Performed By: Dr. /Engr. M. Irfan Ul Hassan

Client Reference: DD/SEC-III/PKG/LOLMTP/LDA/91

SOM Lab

Ref: 2930 (Page-1/2)

Dated: 18-07-2020

Dated: 08-09-2020

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	0.676	4	0.503	0.20	0.199	5.86	9.02	64640	64960	99480	99980	1.10	8.0	13.8	
2	0.679	4	0.505	0.20	0.200	5.91	9.07	65200	65200	100050	100050	1.00	8.0	12.5	
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BEND TEST:

# 4	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

Test Performed by: Dr. S. Asad Ali Gillani

Maj. Tanveer Ahmad ®
Resident Engineer-2 ACES,
Sector-V, DHA, Multan

Client Reference No.: ACES-DHAM-DEV-SEC-V-116

Dated: 28-08-2020

SOM Lab Ref: CED/SOM/2929(Page-1/1)

Dated: 08-09-2020

Test: Tensile Test & Elongation Test , Hardness Test & Water Absorption Test

Sample Type: Rubber Gaskets Joints, 6", 9", 12" Diameter (M/s Long Man Mills)

Tensile Strength & Elongation Test (ASTM-D-412)

S. No.	Sample Type	Sample Size(mm)	Tensile Load (kN)	Tensile Strength Kgs/cm ²	% Elongation
1	Rubber Gasket (6")	11.7	2.8	265.574	560
2	Rubber Gasket (9")	11.5	2.7	265.075	550
3	Rubber Gasket(12")	11.8	2.9	270.418	570

Hardness Test A - Shore (ASTM-D-

2240)

S. No	Sample Type	Sample Size	Hardness (A- Shore)
1	Rubber Gaskets Joints,	6"	54.33
2	Rubber Gaskets Joints,	9"	54.83
3	Rubber Gaskets Joints,	12"	55.00

Water Absorption (ASTM-D-2240)

S. No	Sample Type	Remarks
1	Rubber Gaskets Joints (6 inch)	No absorption
2	Rubber Gaskets Joints(9 inch)	No absorption
3	Rubber Gaskets Joints(12inch)	No absorption

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

