





QUALITY CONTROL CENTRE

234-A, Ferozepur Road, Near Canal Bridge, Lahore-54600. Ph: (042) 99230617-18, Fax: (042) 99231089

TEST REPORT

Your Ref. No. RE/ACE/CPEC-WC/P-4/16/91

Dated: - 20-1-2-17

Report issue to:

Our Ref.No.QCC/4(362)/16-17 (348)

Dated: 012.17

Sample received from: The Resident Engineer,

ACE-ACC(JV),

CPEC (W-C), Trap to Pindi Gheb

Package-4, Pindi Gheb. No. of Sample: One (1).

Specification against which tested:

ASTM Method

Subject:

Testing of sample stated to be "PVC Water Stopper" (Section of

Hakla(M-1)-Yarak (D.I.Khan) Motorway)

The sample as received has been tested with the following results:

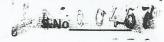
S. No.	Description of tests	Test Results to Lab. Reg. No. PE/944
1	Tensile Strength (MPa).	15.3
2	Elongation at break (%).	330
3	Hardness Shore Type "A"	79 – 80
4	Water Absorption test (%).	0.016
5	Specific gravity.	1.388
6	Low temperature Brittleness at -40°C for 3 minutes.	Satisfactory.

End of Test Report.

Assistant Director (Physical)

(Syed Igbal Ahmed) Director QCC (North) Lahore (1770-1771)









QUALITY CONTROL CENTRE

234-A, Ferozepur Road, Near Canal Bridge, Lahore-54600Ph(042)99230617-18,Fax(042)-992301089

TEST REPORT

Your Ref No. 5742 Dated:-31-05-2017 Our Ref No QCC/4(362)/16-17 (1274)
Dated - 08. 06.17

Sample Received From: Report issue to

The National Highway Authority, Ministry of Communication, No of Samples One (01)
Specification against which tested

GOVT OF PAKISTAN.

ASTM-METHOD

Subject:-

Testing of Sample stated to be PVC Water Stop Up Gradation. Widening & Improvements of Zhob-Mughal Kot Section National Highway N-50 (ICB-3C) Lot # I Zhob to Killi Khudai Nazar Km

2+400---49+000.

Back Filling with Granular Material of 3rd Layer B/S.

The sample as received has been tested with the following results:-

S.No	Description of tests.	Result to Lab Reg. No. PE/1996	
1	Tensile Strength (Mpa)	14.5	
2	Elongation at Break on 25mm G.L (%)	357	
3	Hardness Shore type "A"	79 – 81	
4	Water absorption test (%)	0.020	
5	Specific Gravity	1.390	
6	Low Temperature Brittleness -37°C for 3 minutes Sa		

End of Test Report

ASSISTANT DIRECTOR (PHYSICAL)

(MASOOD AHMED KHAN) DIRECTOR QCC NORTH LAHORE (467-468)



DEPARTMENT OF CHEMICAL ENGINEERING

University of Engineering and Technology, G.T. Road, Lahore, 54890 (PAKISTAN)

Ref. No. Chem. Engg 17/486

Dated: 03 - 10 - 2017

Mr. Muhammad Tayyab, Resident Engineer. NESPAK Lahore.

Subject:

TESTING OF PVC WATER STOP

Storm Water Drainage System from Haji Camp to River Ravi Via Lakshmi Chowk, Mcleod road, Nabha road, Chuburji & Sham Nagar Lahore. (Package-I):

With reference to your letter No.3882/11/MT/01/002 dated 21-07-2017 on the subject cited above. The result of provided sample is as under: Sample received on 25-09-2017.

Sr.#	Description	Unit	Result	Test Method
	1			ASTM
1	Specific Gravity	-	1.349	D-792
2	Water Absorption	%age	0.0158	D-570
3	Tensile Strength	Mpa	14.67	D-412,638
4	Elongation at Break	%age	359	D-412,638
5	Hardness Shore "A"	Point	79	D-2240
6	Low Temperature Brittleness -35°F	Observation	No Crack No Shape Change	D-746

(Fayyaz A. Khan) Supervisor (Lab.) U.E.T ENUR. BEDTE AND THE SERVICE OF THE SERVICE OF

(Prof. Dr. Ing. Naveed Ramzan) Chairman

Note: This test report is based on sample provided by the client. As sampling has not been performed by the Chemical Engineering Department. The authenticity of sample lies with the client. After completion of the report the sample will be reserved for fifteen days until negotiated otherwise. Non-negotiable results can not be challenged.

Ph: 042-99029488 Fax: 042-99250202 E-mail: chairmanchemical@uet.edu.pk





PITC Compound, Ferozpur Road, Lahore-54600 Ph: 042-9230617 Fax: 042-9230618



TEST REPORT

Your Ref. No: 3261/120/GS/CS-Flyover/Multan/11/103

Dated: 19-09-2011 Sample received from: Report Issued to

Resident Engineer,

Nagshah Flyover Chowk, Multan.

Our Ref. No: QCCL/4(362)11-12(710) Dated: -24 (362)11-12(710)

No of Sample. (01) One

Specification against which tested.

ASTM-Method.

Subject:-

Testing of Samples stated to be " PVC Water Stops". Marflex N-70 Multan.

The above sample as received has been tested with the following

Sr No.	Lab Reg. Nos.	Tensile Strength	Elongation at
1	PE/271	(Mpa)	break (%)
	, -: +	13.5	340

End of Test Report

DIRECTOR (NORTH) QUALITY CONTROL CENTRE LAHORE (685).







QUALITY CONTROL CENTRE

234-A, Ferozepur Road, Near Canal Bridge, Lahore-54600Ph(042)99230617-18,Fax(042)-992301089

TEST REPORT

Your Ref No. Marflex/W.S/2014

Dated:-19-02-2014

Report issue to

Sample Received From:

M/S. Marflex House, 40- Ferozepur Road,

LAHORE,

Our Ref No. QCC/4(362)12-13 (4236) Dated; -21/02/14

No of Samples One (01)

Specification against which tested

ASTM-Method

Subject:-

Testing of Sample stated to be Water Stopper.

For Patrind Hydropower Project (Daewoo E&C).

The sample as received has been tested with the following

results -

	lesuits	9
S.#	Description of tests.	Result to Lab Reg. No PE/502
1.	Tensile Strength (Mpa)	14.5
2.	Elongation at Break on 25mm G.L (%)	357
3.	Hardness Shore type "A"	79 - 81
4.	Specific Gravity	1.390
5.	Low Temperature Brittleness -35°C for 3 minutes	Satisfactory

End of Test Report

Remarks:- This report pertain to the sample provided by the client for the desired tests only.

EXAMPLE (PHYSICAL)

CH. IKRAMUL HAQ)
Director QCC (North)

LAHORE

SENIOR EXAMINER (PHYSICAL)







QUALITY CONTROL CENTRE

234-A, Ferozepur Road, Near Canal Bridge, Lahore-54600Ph(042)99230617-18,Fax(042)-992301089

TEST REPORT

Your Ref No. ACE/DKHP/PM/SO/691

Dated:-27-01-2016

Our Ref No.QCC/4(362)/15-16(1766) Dated: 01.02.16

Sample Received From:

The Project Manager,

No of Samples One (01)

Report issue to

Daral Khwar Hydropower Project,

Specification against which tested

DKHP, Kooza Ghari, Bahrain,

ASTM-METHOD

Distt SAWAT.

Subject:-

Testing of Samples stated to be Water Stopper 9 mm thick Marflex

Brand for Design, Procurement and Construction of Daral Khwar

Hydropower Project.

The sample as received has been tested with the following results:-

S.No	Description of tests.	Results to Lab Reg. No. PE/879
1	Tensile Strength (Mpa)	14.5
2	Elongation at Break on 25mm G.L (%)	357
3	Hardness Shore type "A"	79 - 81
4	Water absorption test (%)	0.020
5	Specific Gravity	1.390
6	Low Temperature Brittleness -35°C for 3 minutes	Satisfactory

End of Test Report

Remarks:- This report pertain to the sample provided by the client for the desired tests only.

SENIOR EXAMINER (PHYSICAL)

DIRECTOR OCC NORTH LAHORE







QUALITY CONTROL CENTRE

234-A, Ferozepur Road, Near Canal Bridge, Lahore-54600Ph(042)99230617-18,Fax(042)-992301089

TEST REPORT

Your Ref No. RE/KD/21/01/2014

Dated:-12-07-2014

Report issue to

Our Ref No.QCC/4(362)/14-15 (5703)
Dated; - 17 - 07 - 14

Sample Received From:

m:

The Resident Engineer.

Detailed Design & Construction,

Supervision of Kiyala Dam Project,

Distt ABBOTTABAD.

No of Samples One (01)

Specification against which tested

ASTM-METHOD

Subject:-

Testing of Samples stated to be Water Stopper for the Construction of.

Kiyala Dam Project Havelian Distt Abbottabad.

The sample as received has been tested with the following results:-

S.No	Description of tests.	Resulst to Lab Reg. No. PE/35
1	Tensile Strength (Mpa)	14.5
2	Elongation at Break on 25mm G.L (%)	357
3	Hardness Shore type "A"	79 - 81
4	Water absorption test (%)	0.020
5	Specific Gravity	1.390
6	Low Temperature Brittleness -35°C for 3 minutes	Satisfactory

End of Test Report

Remarks:- This report pertain to the sample provided by the client for the desired tests only.

EXAMPLER (PHYSICAL)

SENIOR EXAME

(ENGR.AHMAD NADEEM IQBAL)
DIRECTOR QCC NORTH
LAHORE (2820-21)



S.No



GOVERNMENT OF PAKISTAN MINISTRY OF SCIENCE & TECHNOLOGY PAKISTAN STANDARDS & QUALITY CONTROL AUTHORITY



QUALITY CONTROL CENTRE

234-A, Ferozepur Road, Near Canal Bridge, Lahore-54600Ph(042)99230617-18,Fax(042)-992301089

TEST REPORT

Your Ref No. ECSP/PWF/124

Dated:-05-12-2012

Our Ref No.QCC/4(362)12-13 (2416)

Dated; - 10/12/12

No of Samples One (01).

Specification against which tested

ASTM-Method

Sample Received From:

Report issue to

Subject:-

The Chief Resident Engineer,

Engineering Consultancy Services,

Punjab (Pvt) Ltd,

83-A,E/I Main Boulevard Gulberg-III,

LAHORE.

Testing of Sample stated to be Water Stopper Sheet (MARFLEX).

230mm X 10mm Construction of Flyover & Underpass at Pirwadhi Morr

On G.T Road Rawalpindi

The sample as received has been tested with the following

results:-

S.#	Description of tests.	Result to Lab Reg. No PE/538	
1.	Tensile Strength (Mpa)	14.5	
2.	Elongation at Break on 38mm G.L (%)	352	1
3.	Hardness Shore type "A"	78 - 80	
4.	Specific Gravity	1.392	
5.	Low Temperature Brittleness -40c for 3 minutes	Satisfactory	حى
6.	Water Absorption (%)	0.020	

End of Test Report

REPORTED BY

(MASOOD AHMED KHAN)

Director (North)
Quality Control Centre
LAHORE
(636)



DEPARTMENT OF CHEMICAL ENGINEERING

University of Engineering and Technology, G.T.Road, Lahore. 54890 (PAKISTAN)

					2	
Ref.	No	Cher	m.En	gg 1	-81	
		C"1		1	1	

Mr. Imran Badar Chief Resident Engineer, (Package-1) Pakcage-I (NESPAK) Lahore.

Subject:

Testing of Water Stopper (ASTM D-117, D-736, D, 746, D.792

Lahore Orange Line Metro Train Project (Package-1)

With reference to your letter No.3765/11/IB/PVC-WS-412, dated: 28-01-2016 or

the subject cited above. The result of the provided sample is as under:

Sr#	Description /Element	Unit	Result
1.	Specific gravity at 25°C Density	g/cm ³ .	1.394
2.		%age	0.198
3.	Tensile Strength	Мра	1.4.6
4.	Elognation @break	%age	356
5.	Hardness	Shore A	81
().	Heat Resistance Test (48 hrs)	160°F	No cracks No change of mask
7.	Salt spray resistance test		i) No change of mask as per standard ii) Smooth adhesion as per standard
8.	Low temperature brittleness test	-40°C	Satisfactory

(Fayyaz A. Kirmani) Supervisor



(Prof. Dr. Hassan Javed) Chairman

This test report is based on sample provided by the client. As sampling has not been performed by the Chemical Engineering Department. The authenticity of sample lies with the client. After completion of the report the sample will be reserved for one month until negotionated otherwise. Non-negotiable results can not be challenged.

Ph: 042-99029488 Fax: 042-99250202 E-mail chairmanchemical@uet.edu.pk



S.No 3166



Pitac Compound Ferozepur Road Lahore 54600 Phone 042-9230617- Fax 042-9230618

TEST REPORT

Your Ref No. LBDC/ICB-01/REO/101

Dated:-31-10-2011

Our Ref No.QCC/4(362)11-12 (476)

Dated; - 03 - 11 - 11

Sample Received From:

Report issue to

The Resident Engineer,

LBDC, Consultant, OKARA

NESPAK-MML-MMP-ACE Joint Venture, Consultants

LAHORE

No of Samples One (01)

Specification against which tested

ASTM-Method

Subject:-

Testing of Sample stated to be Water Stopper Sheet (MAR FLEX).

The sample as received has been tested with the following

results-

S.#	Description of tests.	Result to Lab Reg. No PE/416
1,	Tensile Strength (Mpa)	13.9
2.	Elongation at Break on 25mm G.L (%)	357
3.	Hardness Shore type "A"	80 - 81

Remarks:- This Report pertains to the sample provided by the client for the desire tests only. End of Test Report

DIRECTOR INCHARGE QUALITY CONTROL CENTRE LAHORE. (3166)







Our Ref No.QCC/4(362)12-13 (2529)

Dated; - 25/0//3

No of Samples One (01)

Specification against which tested

ASTM-Method

QUALITY CONTROL CENTRE

234-A, Ferozepur Road, Near Canal Bridge, Lahore-54600Ph(042)99230617-18,Fax(042)-992301089

TEST REPORT

Your Ref No. 31158/RE/FLYO/04/234

: Dated:-22-01-2013

Report issue to

Subject:-

Sample Received From:

The Resident Engineer,

National Engineering Services,

Pakistan (Pvt) Ltd,

Site Office, Flyover Project

Main G.T Road, GUJRANWALA

Testing of Sample stated to be Water Stopper Sheet.

Construction of Flyover On G.T Road Gujranwala.

The sample as received has been tested with the following

results:-

S.#	Description of tests.	Result to Lab Reg. No PE/639
1.	Tensile Strength (Mpa)	14.5
2	Elongation at Break on 38mm G.L (%)	357
3.	Hardness Shore type "A"	78 - 80
4.	Specific Gravity	1.392
5.	Low Temperature Brittleness -40c for 3 minutes	Satisfactory
6.	Water Absorption (%)	0.020

End of Test Report

(MASOOD AHMED KHAN) Director (North) Quality Control Centre

LAHORE



QUALITY CONTROL CENTRE

PITAC Compound, Ferozepur Road, Lahore-54600 Ph: 042-9230617 Fax: 042-9230618



Your Ref.No. 2636/103/MAA/04/300

Dated: 25-05-2010.

Our Ref. No. QCC/4(354)/09-10 (5631)
Dated:- > \$/5// 0

Sample received from: The Resident Engineer,

Report issue to

National Engg:Services

. Pakistan(Pvt)Ltd, LAHORE.

No. of sample One (1).

Specification against which tested.

ASTM-Method.

Subject :-

Testing of sample stated to be PVC Water Stopper (Marflex) Lahore Ring Road(Package-17).

The sample as received has been tested with the following results :-.

S.No.	Description of tests.	Results to Lab Reg No.	PE/3090
1.	Tensile Strength (Mpa).	13.2	
2 3	Elongation at break on 38 mm G.L (%). Hardness Shore type "A"	370	
	Traidiess shote type "A"	75 – 80	

Remarks:- This report pertains to the sample provided by the client for the desired tests only. End of Test Report: .

DEPUTY DIRECTOR INCHARGE QUALITY CONTROL CENTRE LAHORE (MEL)

tes: Please see terms & condition overleaf



QUALITY CONTROL CENTRE

PITC Compound, Ferozpur Road, Lahore-54600 Ph: 042-9230617 Fax: 042-9230618



TEST REPORT

Your Ref. No:2636/103/2011/SAA/3050

Dated: 14-07-2011.

Sample received from: The Resident Engineer

Report Issued to

NESPAK LTD.

1-C Block-N Model Town,

Lahore.

Our Ref. No: QCCL/4(362)11-12 (275)

Dated: - 18/07/11

No of Sample. (01) One

Specification against which tested.

ASTM-Method.

Subject:-

Testing of Samples stated to be "PVC Water Stoper 225x10mm

(Lahore Ring Road Project Package 13-A) Provided by Marflex

The above sample as received has been tested with the following

Results:-

S No	Description of tests.	Results to Lab. Reg. No. PE/36		
1	Tensile Strength (Mpa)	14.4		
2	Elongation at break (%)	354		
3	Hardness Shore type "A"	77 - 78		

End of Test Report

REPORT PREPARED BY

QUALITY CONTROL CENTRE LAHORE (195).









QUALITY CONTROL CENTRE

234-A, Ferozepur Road, Near Canal Bridge, Lahore-54600Ph(042)99230617-18,Fax(042)-992301089

TEST REPORT

Your Ref No. 3416/103/KCU/GSH/34

Dated:-07-01-2013

Report issue to

Our Ref No.QCC/4(362)12-13 (7489) Dated;- 10///3

Sample Received From:

The Resident Engineer,

National Engineering Services,

Pakistan (Pvt) Ltd,

Nespak House, LAHORE

No of Samples One (01)

Specification against which tested

ASTM-Method

Subject:-

Testing of Sample stated to be Water Stopper Sheet.

Metro Bus Transit System for Lahore, Kalma Chowk Underpass

The sample as received has been tested with the following

results:-

	resuits	7 1 27 71
S.#	Description of tests.	Result to Lab Reg. No PE/601
1.	Tensile Strength (Mpa)	14.5
2.	Elongation at Break on 38mm G.L (%)	352
3.	Hardness Shore type "A"	78 - 80
4.	Specific Gravity	1.392
5.	Low Temperature Brittleness -40c for	Satisfactory
6.	3 minutes Water Absorption (%)	0.020

End of Test Report

(MASOOD AHMED KHAN)

Director (North) Quality Control Centre · LAHORE





QUALITY CONTROL CENTRE

234-A, Ferozepur Road, Near Canal Bridge, Lahore-54600Ph(042)99230617-18,Fax(042)-992301089

TEST REPORT

Your Ref No. nespak/isd-1/03/61

Dated:-18-06-2014

Report issue to

Our Ref No.QCC/4(362)/13-14(5640) Dated; - 04.7.14

Sample Received From:

The Resident Engineer.

National Engg Services Pakistan

Pakistan (Pvt) Ltd.

Nespak House, 1-C. Block-N.

Model Town Extension, LAHORE

No of Samples One (01)

Specification against which tested

ASTM-METHOD

Subject:-

Testing of Sample stated to be PVC Water Stop. (Marflex) 225 mm

Width 10 mm Thickness for Metro Bus Project Faizabad-Peshawar

Morr. ISB-Package 1.

The sample as received has been tested with the following results:-

	Result to Lab Reg. No. PE/948
Tensile Strength (Mpa)	14.5
Elongation at Break on 25mm G.L (%)	357
Hardness Shore type "A"	79 – 81
Water absorption test (%)	0.020
Specific Gravity	1.390
Low Temperature Brittleness -40°C for 3 minutes	Satisfactory
	Hardness Shore type "A" Water absorption test (%)

End of Test Report

Remarks:- This report pertain to the sample provided by the client for the desired tests only.

SENIOR EXAMINER (PHYSICAL)

(ENGRAHMADA DIRECTOR QCC N LAHORE (2811-12







QUALITY CONTROL CENTRE

234-A, Ferozepur Road, Near Canal Bridge, Lahore-54600Ph(042)99230617-18,Fax(042)-992301089

TEST REPORT

Your Ref No. GRCJV/JHPP/MF/0159

Dated:-19-11-2015

Our Ref No.QCC/4(362)/15-16 (489) Dated; -34 11 15

Sample Received From:

The Project Director,

No of Samples One (01)

Report issue to

GRC Joint Venture

Specification against which tested

84-Nusrat Road Hassan Aracde,

ASTM-METHOD

AMINER (PHYSICAL)

Multan Cantt MULTAN.

Subject:-

Testing of Sample stated to be PVC Water Stop. (Marflex) 225 mm

Width 10 mm Thickness for Plant Design & Procurement and

Construction of Jabori HPP Contract NoICB/JHPP-01

The sample as received has been tested with the following results:-

S.No	Description of tests.	Result to Lab Reg. No. PE/688
1.	Tensile Strength (Mpa)	14.5
2.	Elongation at Break on 25mm G.L (%)	357
3.	Hardness Shore type "A"	79 – 81
4.	Water absorption test (%)	0.020
5.	Specific Gravity	1.390
6.	Low Temperature Brittleness -40°C for 3 minutes.	Satisfactory

End of Test Report

Remarks:- This report pertain to the sample provided by the client for the desired tests only.

(ENGR.AHMAD NADEEM IOBAL) DIRECTOR QCC NORTH

LAHORE







QUALITY CONTROL CENTRE

234-A, Ferozepur Road, Near Canal Bridge, Lahore-54600Ph(042)99230617-18,Fax(042)-992301089

TEST REPORT

Your Ref No. CWEUDP/OUT/005 Dated:-06-02-2013

Our Ref No.QCC/4(362)12-13 (26 Dated; - 11 02 13

Sample Received From:

M/S. China International Water &,

No of Samples One (01)

Report issue to

Electric Corp, Urban Infrastructure, Development Package-II of Azad Jammu,

Specification against which tested ASTM-Method

And Kashmir Urban Development Program,

Kund Airport Road near Harri Stop, Muzaffarabad

AZAD JAMMU AHD KASHMIR

Subject:-

Testing of Sample stated to be Water Stopper Sheet.

The sample as received has been tested with the following results:-

S.#1	Description of tests.		Result to Lab Reg. No PE/687	
1.	Tensile Strength (Mpa)	,	14.5	
2.	Elongation at Break on 25mm G.L (%)		355	
3.	Hardness Shore type "A"		78 - 80	
4.	Specific Gravity		1.392	· · · · · · · · · · · · · · · · · · ·
5.	Water Absorption (%)		0.020	1

End of Test Report

(MASOOD AHMED KHAN)

Director (North) Quality Control Centre LAHORE

(1306)

Notes:- Please see terms & condition overleaf.