



DEPARTMENT OF CHEMICAL ENGINEERING

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

Ref. No. Chem. Engg 18/190

Dated: 27-02-2018

Mr. Ahmed Nadeem Nawaz
Resident Engineer;
RENARDET S.A
(M-4) Package-IIIA

Subject: Testing of Imported Elastomeric Bearing Pad Sample.
Construction of Faisalabad-Khanewal Motorway (M-4) Project, (Contractor M/s GRC Pvt Ltd.)


With reference to your letter No. RE/M-4/3A/2018/144 dated 16-02-2018 on the subject cited above. The result of provided sample is as under:

Description / Test	Unit	Result	Standard Method (ASTM)
Ozone resistance, 20% strain, 100 hrs @38°C ± 1°C (except 100 ±20 Parts per 100,000,000)	Observation	No deformation No cracking (satisfactory)	ASTM D-1149 Rubber deteriorate Cracking in an ozone controlled
Low temperature brittleness, 5 hrs. @ - 40°C	Observation	No Brittle No shape change	D-736
Low temperature stiffness Young's Modulus @35°C	kgf/cm ²	283	D-797
Compression set, 22 hrs. @ 67°C	%	18.25	D-395 (Method B)
Tear strength	kgf/cm ²	24.79	D-624 (Die C)


Description	Unit	Before aging	After aging @100°C, 70 hrs.	Change	Standard ASTM
Hardness (Shore A)	Points	60	64	4	D-2240
Tensile strength	kgf/cm ²	196	179	-08.67%	D-412
Elongation at break	%	482	446	-07.46%	D-412

Elements	C	Si	Mn	P	S
%age	0.218	0.307	0.885	0.026	0.029

Description	Unit	Result
Steel Plates Thickness	mm	1.5
Steel plates	Qty	05


(Fayyaz A. Kirmani)
Supervisor (Lab.)




(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 cannot be challenged.