



DEPARTMENT OF CHEMICAL ENGINEERING

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

Ref. No. Chem. Engg 17/D-5

Dated: 29-12-2017

Resident Engineer-I
Zeerak International (Pvt.) Ltd.
Lahore Sialkot Motorway Project

Subject: Testing of Elastomeric Bearing Pad Sample, (M/s. Interbuna)
Lahore Sialkot Motorway Project.

With reference to your letter No. LSMP/RE-1/2017/95 dated: 18.12.2017 on the subject cited above. The result of provided sample is as under:

Description / Test	Unit	Result	Standard Method (ASTM)
Ozone resistance, 20% strain, 100hrs @38°C ± 1°C (except 100 ±20 Parts per 100,000,000)	observation	No deformation No cracking	ASTM D-1149 Rubber deteriorate Cracking in an ozone controlled (Satisfactory)
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	291	D-797
Compression set, 22 hrs. @ 67°C	%	19.5	D-395 (Method B)
Tear strength	Kgf/cm ²	25.7	D-624 (Die C)

Description	Unit	Before aging	After aging @100°C, 70 hrs.	Change	Standard ASTM
Hardness (Shore A)	Points	61	64	3	D-2240
Tensile strength	Kgf/cm ²	205	187	-8.78%	D-412
Elongation at break	%	497	449	-9.66%	D-412

Elements	C	Si	Mn	P	S	Cu
%age	0.202	0.291	0.980	0.031	0.027	0.041

(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 can not be challenged.