

Fusion of Technology



## NEOPRENE BEARING PAD

(APPROVED BY MORTH & R.D.S.O, DGS & D)



MARUTI TECHNO RUBBER PVT. LTD.



# Fusion of Technology



Pawan Kumar Jain  
C.M.D.

Founded in 1984, MARUTI TECHNO RUBBER PVT. LTD. is now recognized as one of the leading manufacturers and exporters of all kinds of RUBBER and PVC HOSES, RUBBER SHEETS, ELASTOMERIC BEARING PADS, PVC WATER STOP SEALS, HYDROPHILLIC RUBBER GASKET, LDPE, HDPE, UPVC WATER PROOFING MEMBRANE, EPDM WATER PROOFING MEMBRANE, EXPANSION JOINTS FOR BRIDGES and other RUBBER and PVC profiles etc. in Asia. Our strong commitment to quality encompasses the entire production process, starting from strict receiving of standard raw materials, a thorough in-process inspection and maintenance of facilities to ensure consistent quality, and an upcoming final product inspection carried out by both in house laboratory and external certified bodies. Emphasis is given to R&D of products to keep upto-date, with latest market demands & new standards. Our commitment to quality & service is further strengthened by ISO 9001-2008, certification by SAI GLOBAL.

Due to our continuous efforts the quality of our rubber & PVC products has improved considerably and we are permitted by Bureau of Indian Standards New Delhi to affix I.S.I. mark on our Rubber Water Hose, Rubber Welding Hose, Rubber Pneumatic Hose Pipes, Rubber Sheets, Electrical Rubber Mats, PVC Water Stop Seal.

Our export performance has increased considerably due to the excellence in productivity, Quality as well as service throughout the Globe & being committed to goods of highest standards & timely deliveries.





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## CERTIFICATE OF REGISTRATION

This is to certify that:

### Maruti Techno Rubber Pvt. Ltd.

# B-69-70, Sector 5, Noida - 201 301, Distt. Gautam Budh Nagar, Uttar Pradesh, INDIA.

operates a

#### QUALITY MANAGEMENT SYSTEM

which complies with the requirements of  
**ISO 9001:2008**

for the following scope

The registration covers the Quality Management System for the manufacture and sale of rubber hoses, rubber sheets, PVC hoses, PVC waterstop seals, PVC handrails, neoprene bearing pads, EPDM rubber extruded profiles and pads, HDPE Sheets/LDPE Sheets, bridge expansion joints, injection grouting tubes and hydrophilic rubber.

**Certificate No: QEC24746**

Issued: 9 March 2012  
Expires: 20 December 2013

Originally Certified: 20 December 2007  
Current Certification: 18 February 2011

William Smith  
Certification Manager

Duncan Lilley  
Global Head – Assurance Services



Registered by:  
SAI Global Certification Services Pty Ltd (ACN 108 716 669) 296 Sussex Street, Sydney, NSW, 2000 Australia with SAI Global Limited  
11/12 Swastik Dasa Business Park, behind Vadhani Estate, L.B.S Marg Ghatkopar (W) Mumbai 400086 India ("SAI Global") and  
subject to the SAI Global Terms and Conditions for Certification. While all due care and skill was exercised in carrying out this  
assessment, SAI Global accepts responsibility only for proven negligence. This certificate remains the property of SAI Global and must  
be returned to SAI Global upon its request. To verify that this certificate is current please refer to SAI Global On-Line Certification  
register at <http://www.sai-global.com>



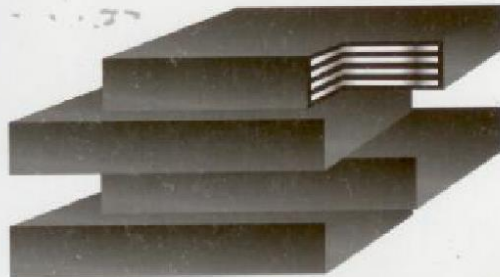


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### Elastomeric Bearing Pad

(MORTH APPROVED)



Neoprene Bearing Pad



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# Neoprene Bearing Pad

(MORTH APPROVED)

### ADVANTAGE OF NEOPRENE ELASTOMERIC BEARING PAD



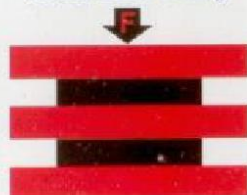
As efficient bearing plates for pre-cast, pre-stressed concrete or steel beams in bridges and buildings. Neoprene pad-plain and laminated-manufactured by Maruti permits a smooth and uniform transfer of load from the beam to the substructure and allow beam rotation at the bearing due to deflection of the beam under load. They further allow lateral and longitudinal movement of the beam caused by thermal forces. Neoprene pads have no moveable parts and thermal expansion and contraction are absorbed by the pads enable to give and take in shear. There is no sliding motion between pad and beam or between pad and abutment.

### QUALITY CONTROL

Lab is equipped with latest instruments like Tensile Tester, IRHD hardness Tester, Tension set Apparatus, Air oven, Muffle furnace, humidity chamber, High voltage tester, Bi-Axial testing machine, all instruments are calibrated from NABL certified lab.



View  
Vertical Load Testing



View  
Shear Load Testing





## Neoprene Bearing Pad Technical Data Sheet

Plan Dimension should be as per series

lo	Over all Length
bo	Over all Width
l	Effective length (excluded side cover)
b	Effective Width (excluded side cover)
c	Thickness of side cover
h	Total height of elastomer
hs	Thickness of steel plate
hi	Thickness of elastomer
he	Thickness of top/bottom elastomer
n	No. of layers of elastomer

1. lo / bo ≤ 2	
2. hi (mm) (Thickness of polymer)	8 10 12 16
3. hs (mm) (Thickness of steel plate)	3 3 4 6
4. C(thickness of side cover)	6
5. S (shape factor)	6 to 12

Total thickness of Bearing Pad  
 $H = n \cdot Hi + 2 \cdot He + (n+1) \cdot Hs$

### NEOPRENE BEARING PAD

Size	Effective Area Ax10-4mm	Max. Load Nmax KN	Min. Load Nmin. At 20 Mpa KN	Polymer Thickness hi (mm)	No. of Layers n	Total Height h (mm)	Shape Factor S	Elastic Modulus Mpa	Shear Modulus Kgl/Cm <sup>2</sup>	Hardness Shore-A
200x350	6.35	635	127	8	4	40	7.91	325 217	9.22	57
250x300	6.85	685	137	8	5	48	8.14	342 228	9.14	56
250x400	9.23	923	185	10	4	50	7.37	286 190	9.25	57
250x500	11.61	1161	232	10	4	50	8.00	334 222	9.15	56
300x400	15.00	1117	223	10	4	60	8.26	353 235	9.30	57
320x500	15.00	1500	300	10	5	60	9.44	444 293	9.65	60
350x450	14.80	1480	296	12	5	72	7.95	328 218	9.4	59
300x600	16.93	1693	339	10	5	60	9.66	461 308	9.22	57
400x400	15.05	1505	301	12	5	72	8.08	342 228	9.65	60
450x500	18.93	1893	379	12	5	72	9.00	406 270	9.42	59
400x800	30.60	3100	600	12	5	72	10.83	534 356	9.35	58
550x550	28.94	2900	579	12	5	72	11.20	574 382	10.55	62



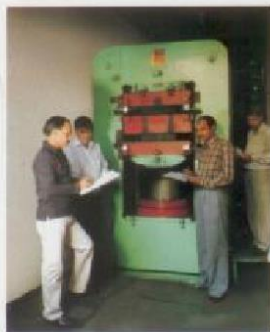
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## Neoprene Bearing Pad

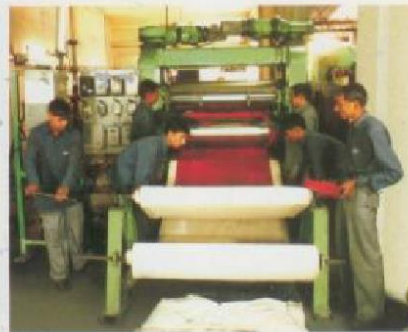
Physical Properties as per standard  
IRC-83 (Part-II)  
With Steel Lamination

Physical Properties as per standard  
ASTMD-15 (Part B)  
Without Lamination

SL. NO.	TYPE OF TEST	UNIT	SPECIFIED	UNIT	SPECIFIED DURO 50	SPECIFIED DURO 60	SPECIFIED DURO 70
1.	Tensile Strength (ASTMD-412)	kgf/cm <sup>2</sup> Mpa	175 min 17 min	kgf/cm <sup>2</sup> Psi	175 2500 (17Mpa)	175 2500 (17Mpa)	175 2500 (17Mpa)
2.	Elongation at break (ASTMD-412)	%	400 min	%	450	400	300
3.	Hardness (ASTMD-2240)	Shore-A	60±5	Duro Meter	50±5	60±5	70±5
4.	Compression Set (ASTMD-395)	%	35 max 100°Cx22HRS	% 70°Cx22HRS	25 Max	25 Max	25 Max
5.	Aging test (ASTMD-573) at 100°C for 70 Hours a. Change in tensile strength b. Change in elongation c. Change in hardness	% % Shore-A	-15 Max -40 Max + 15	% % Duro Meter	±15 Max +40 Max + 15	±15 Max +14 Max + 15	±15 Max +14 Max + 15
6.	Adhesion Test	KN/mtr	7 min	-	-	-	-
7.	Shape Factor	-	6-12	-	-	-	-
8.	Tear Resistance (ASTMD-624)	-	-	kgf/cm	45 min	45 min	45 min
9.	Ozone resistance (ASTMD1149) at 1ppm in air by volume/20% strain/38± 1°C/100 Hours	-	No Crack	-	No Crack	No Crack	No Crack
10.	Low temperature stiffness at (-4.4°C young's modulus (ASTMD-797)	-	-	kgf/cm <sup>2</sup> Psi	700 10,000	700 10,000	700 10,000



Bi-Axial Testing Machine



Calendering Machine