

**Laboratory** Attuned Polymers Laboratories, 311, Rajasthan Technical Centre,  
Patanwala Estate, L. B. S. Marg, Ghatkopar (West), Mumbai,  
Maharashtra

**Accreditation Standard** ISO/IEC 17025: 2005

**Certificate Number** TC-6188

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**Validity** 30.08.2017 to 29.08.2019

**Last Amended on --**

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
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### MECHANICAL TESTING

<b>I.</b>	<b>RUBBER AND RUBBER PRODUCTS</b>			
<b>1.</b>	<b>Rubber Vulcanizate</b>	Durometer Hardness (Shore A)	IS 3400 Part 23 ISO-7619	5 to 95
		De Mattia Flex	IS 3400 Part 7 IS 3400 Part 8	Upto 99999 cycles
		Compression Set	IS 3400 Part 10	Upto 100%
		Rebound Resilience	IS 3400 Part 11	15 % to 80%
<b>2.</b>	<b>Vulcanised / thermo plastic rubbers</b>	Specific Gravity Density	IS 3400 Part 09 ISO-2781	0.05 g/cc to 5 g/cc
		Tensile Strength, Elongation @ break Modulus	IS 3400 Part 01 ISO-37	23 kg/ cm <sup>2</sup> to 250 kg/ cm <sup>2</sup>
		Water Absorption	IS 3400 Part 06 ISO 1817	0.05 % to 100 %
		Swelling Test	IS 3400 Part 06 ISO 1817	(+) 0.05 % to 150% (-) 0.05 % to 50%
		Accelerated Ageing	IS 3400 Part 04 ISO 188	23 kg/ cm <sup>2</sup> to 250 kg/ cm <sup>2</sup>
		Ross Flex	IS 3400 Part 16	Upto 99999 cycles
		Abrasion Resistance (Volume Loss)	IS 3400 Part 03	10 mm <sup>3</sup> to 600 mm <sup>3</sup>
		Angular Tear Strength	IS 3400 Part 17	10 kg/cm to 100 kg/cm
		Ozone Resistance	IS 3400 Part 20 ISO 1431 – 1	Qualitative 30 pphm to 200 pphm
		Tension set	IS 3400 Part 13	Upto 100%
		Bond Strength	IS 3400 Part 14	0.1 kgf to 50 kgf
		Mooney Viscosity of Natural Rubber	IS 3660 Part 07 ISO 289 – 1	15 Mooney Units to 200 Mooney Units
		Mooney Viscosity of Synthetic Rubber	IS 11720 Part 03	15 Mooney Units to 200 Mooney Units

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3.	Fabric bonded to rubber	Adhesion of rubber to textile fabric	IS 3400 Part 5	0.1 kgf to 50 kgf
4.	Raw Rubber / Un-vulcanized Compound / Rubber Vulcanizate	Ash Content	ASTM D 297 Sec 36.	0.01% to 99%
II.	<b>PLASTIC AND POLYMERS</b>			
1.	Thermo plastic polymers	Melt flow Index	IS – 2530 (Method A) ASTM D – 1238 – 13 DIN EN ISO 1133 -1-03 EN ISO 1133–1 (E)	0.15 g / 10 minutes to 50 g / 10 minutes