| Laboratory | Thirumalesa Metallurgical Services, 70/K 12-B, Chitra Nivas, 5 th Cross, |
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Indira Nagar, Hosur, Tamil Nadu

Accreditation Standard ISO/IEC 17025: 2005

Discipline Mechanical Testing Issue Date 28.05.2015

Certificate Number T-2405 Valid Until 27.05.2017

Last Amended on - Page 1 of 1

| S.No. | Product / Material of Test | Specific Test Performed | Test Method Specification against which tests are performed | Range of Testing / Limits of Detection | | |
|-------|--|--|---|---|--|--|
| I. | MECHANICAL PROPERTIES OF MATERIALS | | | | | |
| 1. | Metals & Alloys (Ferrous and its Alloys) | Tensile Tests Ultimate Tensile Strength %Elongation Yield Strength | IS 1608: 2005(RA 2010) | Upto 400 kN Upto 50% | | |
| | | Hardness Test Brinell Hardness Test | IS 1500: 2005(RA 2010) | 95 HBW to 400 HBW (2.5/187.5) | | |
| | | Vickers Hardness Test | IS 1501: 2002 (RA 2007) | 101 HV5 to 1000 HV5 101 HV10 to 1000 HV10 | | |
| | | Rockwell Hardness Test | IS 1586: 2000 (RA 2010) | 45 HRA to 88 HRA 20 HRB to 100 HRB 20 HRC to 64 HRC | | |