

Laboratory Testing Laboratory, SAIL - VISL, Steel Authority of India Ltd.,
Visvesvaraya Iron & Steel Plant, Bhadravati, Karnataka

Accreditation Standard ISO/IEC 17025: 2005

Discipline Mechanical Testing **Issue Date** 02.01.2015

Certificate Number T-1844 **Valid Until** 01.01.2017

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| 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. | Ferrous Forgings & Rolled Products (Wrought & Cast) | <u>Hardness</u> | | |
| | | Brinell Hardness | IS 1500: 2005 | (60 to 450) HBW (10 / 29.42) kN |
| | | Rockwell Hardness | IS 1586: 2000 | (20 to 65) HRC |
| | | <u>Impact – Ambient Temperature</u> | | |
| | | Charpy U | IS 1499: 1977 | (2 to 300) J |
| | | Charpy V | IS 1757: 1988 | (2 to 300) J |
| | | Izod | IS 1598: 1977 | (2 to 170) J |
| | | <u>Tensile Test</u> | | Upto 1000 kN load in the range of |
| | | Tensile Strength | IS 1608: 2005 | (0 to 50) kN LC: 0.1 kN |
| | | Yield Strength | | (0 to 100) kN LC: 0.2 kN |
| | 0.2 % Proof Stress | | (0 to 200) kN LC: 0.5 kN | |
| | % Elongation | | (0 to 500) kN LC: 1.0 kN | |
| | % Reduction in Area | | (0 to 1000) kN LC: 2.0 kN | |
| II. METALLOGRAPHY TEST | | | | |
| 1. | Ferrous Forgings & Rolled Products (Wrought) | Inclusion Rating | IS 4163: 2004 | Qualitative (0 to 3) Rating |
| | | Grain Size Measurement | IS 4748: 2009 | Qualitative (0 to 10) Rating |

-X-X-X-X-X-X-X-X-X-X-X-X-