


TEST REPORT

STRUCTURAL ENGINEERING DIVISION

PROJECT : REPORT ON MECHANICAL PROPERTIES OF HT STRANDS
CLIENT : Bajrang Wire and Infra Pvt Ltd
CONSULTANT : Prof. ARUL JAYACHANDRAN
WITNESSED BY : Mr. Jainudeen (Structural Lab)
DATE OF TEST : 04-01-2023



STRUCTURAL ENGINEERING DIVISION
DEPARTMENT OF CIVIL ENGINEERING
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6/1/2023

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REPORT ON MECHANICAL PROPERTIES 12.7mm HT STRANDS

The mechanical properties of the strands are as follows.

Table:1 Mechanical properties of Strands
(Make: JSPL, Coil No: 28KA21-01)

S. No	Details	Results	IS 14268 Code Requirements
1	Diameter of strands	12.7 mm	+0.66 and -0.15
2.	Diameter of Outer wire	4.24 mm	
3	Diameter of Centre wire	4.35 mm	1.5% greater than outer wire
4	Lay Length	184 mm	12 to 16 times nominal dia of strands
5	Nominal Area	99.58 mm ²	98.7 mm ²
6	Nominal Mass	790 kg/km	Minimum 775 kg/km
7	Breaking Load	184.62 kN	183.7 kN
8	Elongation	6.00%	Min 3.5% on gauge length of 600mm
9	0.2% Proof Load	166.16 kN	Minimum 165.3 kN
10	Elastic Modulus	199.22 kN/mm ²	195 ± 10 kN/mm ²

The specimen satisfies the code requirements.


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