

	CORPORATE PURCHASING SPECIFICATION			AA 101 18													
				PAGE 1 OF 3													
<u>COLD ROLLED STEEL STRIPS FOR BOX STRAPPINGS</u>																	
<p>1. <u>GENERAL:</u></p> <p>This specification governs the quality of Cold Rolled Steel Strips for box strappings, in coil form.</p> <p>2. <u>APPLICATION:</u></p> <p>For Strapping of boxes/crates for packing of our products.</p> <p>3. <u>CONDITION OF DELIVERY:</u></p> <p>Strips shall be supplied in Cold Rolled Coil condition with Bright-viz natural surface finish.</p> <p>4. <u>COMPLIANCE WITH NATIONAL STANDARD:</u></p> <p>The material shall comply with the requirements of the following national standard and also meet the requirements of this specification:</p> <table style="width: 100%; margin-left: 40px;"> <tr> <td style="width: 40%;">IS: 5872 - 1990</td> <td style="width: 10%; text-align: center;">0</td> <td style="width: 50%;">Cold Rolled Steel Strips</td> </tr> <tr> <td>Gr: 2, Cold Drawn</td> <td style="text-align: center;">0</td> <td>(Box Strappings)</td> </tr> </table> <p>5. <u>DIMENSION AND TOLERANCES:</u></p> <p>5.1 <u>Sizes:</u></p> <p>Cold Rolled Steel Strips shall be supplied to dimensions specified on the order.</p> <p>5.2 <u>Tolerances:</u></p> <p>Tolerances on strips shall comply with the following:</p> <p>5.2.1 <u>Thickness:</u></p> <p>Tolerances on thickness of cold rolled steel strips shall not exceed the following limits.</p> <table style="width: 100%; margin-left: 40px;"> <thead> <tr> <th style="text-align: left;"><u>Size, mm</u></th> <th style="text-align: left;"><u>Tolerance, mm</u></th> </tr> </thead> <tbody> <tr> <td>0.3 upto & incl. 0.8</td> <td>± 0.04</td> </tr> <tr> <td>Over 0.8 upto and incl. 1.20</td> <td>± 0.05</td> </tr> </tbody> </table>						IS: 5872 - 1990	0	Cold Rolled Steel Strips	Gr: 2, Cold Drawn	0	(Box Strappings)	<u>Size, mm</u>	<u>Tolerance, mm</u>	0.3 upto & incl. 0.8	± 0.04	Over 0.8 upto and incl. 1.20	± 0.05
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Revisions:			APPROVED: INTERPLANT MATERIAL RATIONALISATION COMMITTEE-WG (T&PM)														
Rev. No.	Rev. Date	Revised:	Prepared BHOPAL	Issued Corp. R&D	Date Feb. '93												



5.2.2 Width:

The tolerances on width of cold rolled steel strips shall not to exceed ± 0.15 mm.

6. MANUFACTURE:

The strips shall be manufactured from steel made by any process except the Bessemer process. It may be followed by secondary refining or secondary vacuum melting.

7. FINISH:

Steel Strip shall be supplied with bright finish.

8. FREEDOM FROM DEFECTS:

The strips shall be free from harmful defects such as scales, rust, blisters, laminations, pittings, porosity and other harmful defects such as sharp, cracked or torn edges or any other defects which may impair the serviceability of the strips.

9. CHEMICAL COMPOSITION:

The melt analysis of steel and the permissible variation in the composition of the steel strips from the melt analysis shall be as follows:

Element	Melt Analysis, percent, Max.	Permissible Variation, percent, Max.
Carbon	0.20	+ 0.02
Manganese	0.90	+ 0.03
Sulphur	0.05	+ 0.005
Phosphorus	0.05	+ 0.005

NOTE:

The steel may be made with micro-alloying elements like Niobium, Vanadium, Titanium and Boron, either individually or in combination, on mutual agreement, in which case total micro alloying elements shall not exceed 0.2 percent in melt analysis. However, in case of Boron, the limit shall be 0.1 percent.

10. TEST SAMPLES:

One sample shall be taken from each consignment per size per melt for mechanical and chemical tests. The test samples shall be taken from either end of the strips and shall be at least 1.5 metres in length.

**11. MECHANICAL PROPERTIES:****11.1 Tensile:**

When tested in accordance with IS: 1663, the test pieces shall show the following properties:

Tensile Strength : 590 - 900 N/min²

Elongation on 50 mm 0 : 7 percent Min.
Gauge Length 0

11.2 Reverse Bend Test:

The reverse bend test shall be carried out in accordance with IS: 1403 and when tested on a block of 2.5 mm, shall give a minimum of 2 bends without showing any sign of cracks.

12. TEST CERTIFICATES:

Three copies of test certificates shall be supplied, unless otherwise stated on the order. The test certificate shall bear the following information.

BHEL References:

AA 101 18

BHEL Order No.

Supplier's Reference:

Name

Identification No.

Melt No.

Results of Tests:

Results of Chemical analysis, Mechanical tests.

13. PACKING AND MARKING:

The coil shall be suitably packed to prevent corrosion and damage during transit.

Each coil shall not weigh more than **100 kg**

A metal label shall be securely attached to each coil and shall bear the following information:

AA 101 18 - Cold Rolled Steel Strips For Box Strappings

BHEL order No.

Melt No.

Identification No.

Size & Weight.