



**ISPAAT INDUSTRIES LTD., KALMESHWAR**

**Quality Assurance Department**

**Technical Delivery Conditions (TDC)**

**HIGH STRENGTH (340 Mpa) GALVANIZED STEEL**

<b>Date of Issue</b>	16.03.2006	<b>Revision No.</b>	00	<b>Document No.</b>	IIL/KLM/PD/GI/TDC/006
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<b>Application</b>	<b>1</b>	Crash Guard
	<b>2</b>	
	<b>3</b>	

<b>Equivalent ref. Grade</b>	<b>Specified Grade</b>
	ASTM:A:653 Grade 50 Class 2

<b>Chemistry,wt%</b>	<b>Range</b>	<b>C</b>	<b>Si</b>	<b>S</b>	<b>P</b>	<b>Mn</b>	<b>Ni</b>	<b>Cr</b>	<b>Cu</b>	<b>Mo</b>	<b>Nb</b>	<b>V</b>	<b>Ti</b>	<b>Al</b>	<b>N ppm</b>
340 Mpa	Min.	-				-						-	-	-	-
	Max.	0.065	0.030	0.008	0.010	1.000			0.150		0.055	0.040	-	0.040	80

<b>Mechanical Properties</b>	<b>Range</b>	<b>YS</b>	<b>UTS</b>	<b>% Elongation</b>		<b>Bend Test</b>	<b>ECV</b>	<b>r-bar</b>	<b>n-val</b>	<b>HRB</b>
		Mpa	Mpa	50 GL	80 GL	180°	mm			
340 Mpa	Min.	340	-	12	-	-	-	-	-	-
	Max.	-	-	-	-	-	-	-	-	-

**Surface Finish:** Regular Spangle / Skinpass - Suppressed spangles.

**Process Capability:**

<b>IIL Grade</b>	<b>Range</b>	<b>Thickness, mm</b>	<b>Width, mm</b>	<b>Length, mm</b>	<b>Zinc Coating, GSM</b>
340 Mpa	Min	3.00	-	As per	80
	Max		1000	Requirement	450

**Note:**

<b>1</b>	
<b>2</b>	

**Coil Weight:** 10 MT max.                      **Coil Internal Diameter:** 508 mm / 20"                      **Packet Weight:** 2.00 - 3.00 MT

**Process Route:**

HR Coil --Pickling-->Rolling Mill --> Galvanizing --> Finishing --> Packing --> Despatch

**Certification:**

The Mill Test Certificate (MTC) gives the results of all the tests required by the standards for each grade (Chemistry, Mechanical).

**Tolerances:** Please refer annexure : GP SPECIFICATION

<b>Prepared by:</b> V.S.Gadag	<b>Approved by:</b> Dr.N.C.Jain Vice President - QA	<b>Issued by:</b>
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