

# **TECHNICAL SPECIFICATION OF 25X3 MM GI FLAT**

## **1. SCOPE**

This specification covers manufacture, testing and supply of hot dip galvanized MS solid flat of size 25x3 mm.

## **2. APPLICABLE STANDARDS ZINC**

Zinc shall conform to grade Zen 98 specified in IS 209& IS: 4826-1979 with up to date amendments.

### **ZINC COATING**

Zinc coating shall be in accordance with IS: 4826-1979 for heavily coated hard quality.

### **GALVANISING**

Galvanizing shall be as per IS: 2629-1985, IS 4826-1979 with up to date amendments

### **UNIFORMITY OF ZINC COATING**

Uniformity of zinc coating shall be as per IS: 2633-1972 with up to date amendments

### **TENSILE PROPERTIES**

The tensile strength of the flat after galvanizing shall be between 55-95 Kg/sq.mm  
Ensuring MS flat mechanical properties as per IS-28:1972 8.1 to 8.3

### **FREEDOM FROM DEFECTS**

As per IS: 2629-1985 & 4826-1979 & with up to date amendments be ensured

## **3. MATERIAL**

The mild steel flat shall have chemical composition maximum sulphur- 0.055%, phosphorous -0.055%, Carbon 0.25%.

## **4. TESTS**

During the process of manufacturer/fabrication and all tests for chemical, mechanical, galvanizing as per IS- 280-1979, IS1521-1972, IS-1755-1961, IS: 6745-

1972 & 4826-1979 shall be carried out. The certificate towards, chemical composition shall be submitted for each lot offered for inspection.

The following tests shall be conducted in presence of the representative of the purchaser: Visual physical inspection and measurement of specified dimension Coating test as per IS: 1755-1961, IS 2629-1985, IS: 2633-1972, IS: 4826-1969

Adhesion test as per IS: 1755-1961, IS: 2629-1966, IS: 2633-1972, IS: 4826-1969,& IS:6745-1972

Tensile strength and breaking load and elongation determined as per IS: 1521-1972 with up to date amendments.

### Guaranteed Technical Particulars for No. 25x3 mm G.I flat

Sl. No.	GENERAL TECHNICAL PARTICULARS	Guaranteed Value	Bidders Offer
1	Nominal size in mm	25x3	
2	Tolerance in diameter in mm	$\pm 2.5\%$	
3	Sectional Area (in Sq. mm.)	75	
4	Tensile strength of flat in N/mm <sup>2</sup> / MPa	550-900	
5	Minimum breaking load (KN)	8.79	
6	Variety Hard/Soft	Soft	
7	Type of Galvanizing	Hot dip heavy coating	
8	Weight of Zinc coating (Gms/Sq. Mtr.)	290	
9	No. of dips the coating is able to withstand as $18 \pm 20^{\circ}\text{C}$	3 dip in Min	
10	Adhesion Test (Wrap Test at 1 turn per second coiling while stress not exceeding % nominal tensile strength)	To be specified by bidder	
	i) Min. complete turn of wrap	do	
	ii) Dia of mandrel on which wrapped	do	
11	Bend Test	do	
	i) Angle	do	
	ii) Dia round a format to be bent	do	
12	Freedom from defect	do	
13	Chemical composition the MS Flat used shall Not	do	
	i) Sulphur 0.060%	do	
	ii) Phosphorous 0.065%	do	
14	Weight of flat in Kg/m	0.6	
15	Tolerance in wt.	$\pm 5\%$	
16	Standard according to which the solid flat is manufactured and tested	IS: 280/1978 , IS: 4826/1979 , IS: 7887/1975	