



**Sheet Steel Building Institute**

**technical  
bulletin  
no. 1**

Suite 206, Crestview Plaza, South Service Road, Port Credit, Ontario

## **ASTM A-446-60T Grade A Steel**

We wish to announce that the members of the CSSBI will, in future, purchase their steel for Roof Deck and Floor Deck in accordance with **ASTM Specification A-446-60T-GRADE A**.

All literature, and probably your files, currently call for steel, for these products to conform to ASTM A-366 or A-245 Grade A, and zinc coating in accordance with ASTM A-93. The change to **ASTM A-446-60T GRADE A** has been made by the Industry in general to upgrade its products, and is the result of negotiations by the CSSBI with our two sources of supply, The Steel Company of Canada, Limited, and Dominion Foundries and Steel, Limited.

**ASTM A-446-60T GRADE A** is a higher quality steel than ASTM A-366 and A-245 Grade A, and as well is more economical than the latter. Mill certificates certifying mechanical properties will be available when requested on customer's order. **ASTM A-446-60T GRADE A** relates to galvanized structural sheets and covers the coating specification as well as the steel core specification.

Therefore, as well as calling for **ASTM A-446-60T GRADE A** a material specification should designate the coating weight required.

"Light commercial" as specified in **ASTM A-446-60T GRADE A** is not manufactured in Canada.

The zinc coated (galvanized) steel sheets most commonly used in Canada for metal roof deck and metal floor deck are known by the trade names, "Colourbond" and "Satincoat". For the purpose of table IV of **A-446** these similar products are calculated to have a coating thickness of .0005 in. The approximate weight of coating is 0.30 oz. psf.

The Members of the Canadian Sheet Steel Building Institute feel that since this steel is most commonly used in manufacturing steel Roof Deck and Floor Deck they would appreciate your cooperation in writing specifications for these products.

Attached are tables II, III, and IV, of **ASTM A-446-60T GRADE A**, and an example of a typical material specification.

# ASTM A-446-60T Grade A

Table II—Weight of Coating

Coating Class, oz. per sq. ft.	Triple-Spot Test Minimum Check Limit, oz. per sq. ft.	Single-Spot Test Minimum Check Limit, oz. per sq. ft.
2.75.....	2.35	2.00
2.50.....	2.10	1.80
2.25.....	1.85	1.60
2.00.....	1.65	1.40
1.75.....	1.40	1.20
1.50.....	1.15	1.00
1.25 commercial.....	0.90	0.80
Light zinc coated (Colourbond or Satincoat).....	0.30 approx.	

Table III—Mechanical Requirements

	GRADE A
Tensile strength, min. psi.....	48 000
Yield point min. psi.....	33 000
Elongation in 2 in. (Fig. 1) min. per cent.....	20

Table IV—Thickness to be Deducted from Coated Material  
to Determine Thickness of Base Metal

Coating Class, oz. per sq. ft.	Thickness to be Deducted from Coated Material, in.
2.75.....	0.0041
2.50.....	0.0037
2.25.....	0.0033
2.00.....	0.0030
1.75.....	0.0026
1.50.....	0.0022
1.25 commercial.....	0.0019
Light zinc coated (Colourbond or Satincoat).....	0.0005

## EXAMPLE

### Typical Material Specification

**MATERIAL:** The roof deck or floor deck shall be formed of zinc coated steel, ASTM specification **A-446-60T GRADE A**, with a steel core thickness of 0.0359" and a coating class of light zinc coated (0.30 ounces Colourbond or Satincoat).