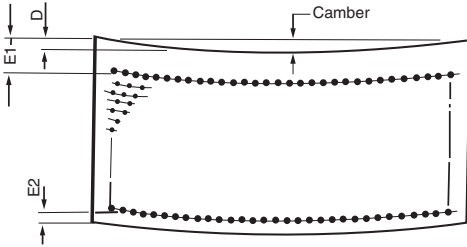


CAMBER

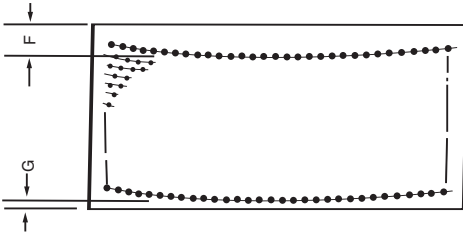
Camber is the greatest deviation of a side edge from a straight line. The measurement is taken over the entire length of the concave side with a straight line.

On perforated sheets with different side margins ($e_2 > e_1$) it is possible to produce a camber effect. This effect is the deflection (d) between one of the longitudinal edges and a straight line supported by the ends of the sheet.

The magnitude of the deflection (d) depends on the length, width, thickness, open area, type of material and relation of e_2 to e_1 .



If sheets are cut after perforation, the camber refers only to the perforated pattern. (See sketch below F & G.)



Designers are requested to avoid different margins whenever possible.

Max. Camber All Metals After Perforating

| Coils and Cut Length Ft. | Commercial Quality | Superior Quality | Special Quality |
|-----------------------------|-----------------------|---------------------|--------------------|
| To 4 Feet Inclusive | 1/8" | 4' = .062" | |
| Over 4-6 Ft. Inclusive | 3/16" | 5' = .098" | |
| Over 6-8 Ft. Inclusive | 1/2" | 6' = .140" | |

Camber measurement is taken by placing an 8 ft. straight edge on the concave side and measuring the greatest distance between the sheet edge and the straight edge.

Due to the nature of the perforating process, camber can be as great as 2" in 20 ft. when processing coil to coil.

For sheets with wider than standard or unequal side margins, camber must be discussed with the IPA member supplier. Camber doesn't vary in direct proportion to length. Camber is always expressed in 8 ft.

$$\frac{L^2 \times C_1}{8^2} = C_2$$

L^2 = Any Given Length

C_1 = Camber in 8 Ft.

C_2 = Camber in any Given Length

Example: $L^2 = 6$ Ft. (Given Length); $C_1 = .250$ " (1/4")

$$\frac{6^2 \times .250}{8^2 \text{ or } (64)} = \frac{36 \times .25}{8^2 \text{ or } (64)} = \frac{9}{64} = .140"$$

| Steel | | | | |
|--|---------------------|---------------------|---------------------|-------------------------|
| Hot Rolled — Hot Rolled Pickled & Oiled | | | | |
| Gage | Mean of Gage | Min. of Gage | Max. of Gage | Lbs. Per Sq. Ft. |
| 7 | .1793 | .1713 | .1873 | 7.500 |
| 8 | .1644 | .1564 | .1724 | 6.875 |
| 9 | .1495 | .1415 | .1575 | 6.250 |
| 10 | .1345 | .1265 | .1425 | 5.625 |
| 11 | .1196 | .1116 | .1276 | 5.000 |
| 12 | .1046 | .0966 | .1126 | 4.375 |
| 13 | .0897 | .0827 | .0967 | 3.750 |
| 14 | .0747 | .0677 | .0817 | 3.125 |
| 15 | .0673 | .0613 | .0733 | 2.813 |
| 16 | .0598 | .0538 | .0658 | 2.500 |
| 17 | .0538 | .0478 | .0598 | 2.250 |
| 18 | .0478 | .0428 | .0528 | 2.000 |