

# What Is 1X Tin Plate?

## A Brief Explanation of Designations and Terms Used in Classifying Tin Plate

By F. R. OTTE

**M**ANY times in selling tin commodities I have been asked the question, what is coke plate, or charcoal plate? What does 1A or IXX tin plate refer to?

Let us begin with a few definitions referring to tin mill products.

A prime (tin) plate is as perfect a sheet as can be produced by the tin mill. This does not mean that all discernible flaws have been eliminated. A few microscopic defects may be seen even in a *prime*, but nevertheless it is as perfect a sheet as can be made under the many processes and conditions and temperatures of operation.

A waster sheet is one which has some slight visible imperfection or irregularity in dimension or trimming. The bulk of the sheet is entirely perfect but as the consumer may have to do some trimming of his own or necessarily scrap a very small part of the plate due to imperfections, such sheets, also called seconds or wasters, are sold at a reduction.

Menders are sheets returned to the tinning department and retreated.

Waste sheets are never sold, as they are virtually scrap and as such discarded to the junk heap or set aside for de-tinning.

### Tin Plate From Wales

The names coke and charcoal tin plate came to this country years ago from Wales. For it was in Wales that we find the birth of the modern tin plate industry. Coke and charcoal refer to the fuels or iron used in the converting process prevalent in the old days. It seems that charcoal iron was used for the finer grades of tin plate and coke iron for the cheaper or lower grades. Its significance today is negligible and is no more than a trade name implying that coke tin plates have a lighter tin coating while the charcoals carry the heavier platings.

Now you will say we purchase our tin plate by the designations of 1X or IXX, and call for an explanation. The X's (called crosses) indicate the basic gauge of the soft steel made especially for tin plating. For example, 1X is a 28 gauge, and implies that a base box of such tin plate weighs 135 lb.; that is, a box containing 112 sheets, every one of which is 14 by 20 in. IXX indicates a basic gauge of 27, and the weight of a base box is 155 lb. The next most common weight is known as IXXX, or 26 gauge and 175 lb. to the box. The next is known as IXXXX, or 25 gauge and 195 lb. basic box. This is the best plate used in the manufacture of ordinary tin commodities.

Now the next thing you want to know; what does 1A, 1AA and so forth, up to 1AAAAA charcoal plate mean? I have already explained the term charcoal. The letters A to 1AAAAA indicate the amount of tin coating and

the degree of finish. For example, you have a IXXXXAAAA charcoal plate. By following the foregoing you will see that this indicates a 25-gauge steel base making a plate weighing 195 lb. to the base box or approximately 1.75 lb. to the sheet. And each sheet is covered with approximately five times as much tin as the basic 1A sheet in the charcoal qualifications. Another example; what is 80-lb. coke? This indicates that you have a very light sheet of approximately 33 gauge; the tin coating is as light as it can be made. The color is lusterless and shows up grayish bringing out the grain of the steel. The plate weighs 80 lb. to the base box of 112 sheets 14 x 20 in.

There is one more term to acknowledge, and that is quite common. I refer to the term IC in tin plate. This indicates one grade below the IX items. It is usually coke weighing 107 lb. to the base box and has a basic gauge of 30.

These facts are rather technical, but they are very important to the sheet metal workers. In my work with the trade, I have often been astounded to find so many men who know much too little about this end of their business.

Occasionally you will find cokes highly polished and giving every appearance of being 1X or charcoals. A coke always shows a grain up and down no matter how highly polished. In the charcoals there is no perceptible grain and in the higher grades absolutely none. Remember the grain is only the basis steel showing through the light coating; or you might say that the very light coating does not completely fill the pores of the black iron.

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### Death of O. W. Zehring

Orlando W. Zehring, veteran commercial representative of the Cleveland Cooperative Stove Co., Cleveland, Ohio, died at his home in that city recently at the age of 75. As he had traveled for the company for the past 40 years he was widely known in the trade. During his sales experience Mr. Zehring has sold more than 200,000 stoves and traveled in excess of a half million miles.

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### Steel Life Boats Stand the Gaff

As compared with wooden life boats, according to an English report, steel life boats have an overwhelming advantage in economy. A steamer in the British registry, 13 years old, is said to have carried three wooden lifeboats and one of seamless steel. The three wooden lifeboats have been replaced twice in addition to extensive repairs while the steel lifeboat is still in use, having had only a single patch and periodical painting.