

The American Society for Testing and Materials is an international standards organization that develops and publishes voluntary consensus technical standards for a wide range of materials, products, systems, and services.

ASTM A153 Zinc coating (hot dip) on iron and steel hardware.

The ASTM A153 specification covers zinc coating (hot-dip) on iron and steel hardware. See the below chart for the different classes covered under A153. A newer and more fastener-appropriate specification, designed to replace A153 Class C, approved in 2005 and covering the requirement for hot-dip galvanizing bolts, screws, nuts, washers and other threaded fasteners is ASTM F2329. It is slowly becoming more widely used and referenced, but many publications and technical manuals are not revised on a regular basis, so it may still be a while before F2329 is widely adopted. ASTM A123 is a related hot-dip galvanizing specification covering iron and steel products made from rolled and pressed shapes, castings, plates, bars, and strips. The equivalent AASHTO specification to ASTM A153 is AASHTO M232.

Thickness or Weight of Zinc Coating for Various Classes

Class	Description	Minimum Average Coating Thickness, mils	Minimum Coating Thickness, Any Individual Specimen, mils
Class A	Castings, Malleable Iron, Steel	3.4	3.1
Class B	Rolled, pressed, forged articles except those covered by Classes C and D	See below B-1 through B-3	See below B-1 through B-3
Class B-1	3/16" and over in thickness and over 15" in length	3.4	3.1
Class B-2	Under 3/16" in thickness and over 15" in length	2.6	2.1
Class B-3	Any thickness and under 15" in length	2.2	1.9
Class C	Fasteners over 3/8" in diameter and similar articles, washers 3/16" to 1/4" thick	2.1	1.7
Class D	Fasteners 3/8" and under in diameter, rivets, nails and similar articles. Washers under 3/16" thick	1.7	1.4

海盐百伦紧固件有限公司