

JIS

JAPANESE INDUSTRIAL STANDARD

Zinc-coated low carbon steel wires

Ⓒ JIS G 3547—1993

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Zinc-coated low carbon steel wires

G 3547-1993

1. Scope This Japanese Industrial Standard specifies zinc-coated low carbon steel wires (hereafter, referred to as "steel wires").

Remarks: The following standards are cited in this Standard.

JIS G 3505 Low carbon steel wire rods

JIS H 0401 Methods of test for hot dip galvanized coatings

JIS Z 2201 Test pieces for tensile test for metallic materials

JIS Z 2241 Method of tensile test for metallic materials

2. Definitions For the main terms used in this Standard, the following definitions apply.

(1) zinc-coated low carbon steel wires (S) A steel wire of a circular sectional form wherein a wire rod conforming to JIS G 3505 is cold worked and annealed, and then coated with zinc by hot-dipping or electrolyzing.

(2) zinc-coated low carbon steel wires (H) A steel wire of a circular sectional form wherein a wire rod conforming to JIS G 3505 is cold worked, and then coated with zinc by hot-dipping or electrolyzing.

3. Wire types, symbols and applicable wire diameters Steel wires shall be classified in zinc-coated low carbon steel wires (S) and zinc-coated low carbon steel wires (H), and further subclassified respectively into seven types of classes 1 to 7 and four types of classes 1 to 4. The symbols and applicable wire diameters thereof shall be as given in Table 1.

Table 1. Wire types, symbols and applicable wire diameters

Unit: mm

Wire types		Symbols	Applicable wire diameters
Zinc-coated low carbon steel wires (S)	Class 1	SWMGS-1	0.10 or over up to and incl. 8.00
	Class 2	SWMGS-2	0.10 or over up to and incl. 8.00
	Class 3	SWMGS-3	0.90 or over up to and incl. 8.00
	Class 4	SWMGS-4	0.90 or over up to and incl. 8.00
	Class 5	SWMGS-5	1.60 or over up to and incl. 8.00
	Class 6	SWMGS-6	2.60 or over up to and incl. 6.00
	Class 7	SWMGS-7	2.60 or over up to and incl. 6.00
Zinc-coated low carbon steel wires (H)	Class 1	SWMGH-1	0.10 or over up to and incl. 6.00
	Class 2	SWMGH-2	0.10 or over up to and incl. 6.00
	Class 3	SWMGH-3	0.90 or over up to and incl. 8.00
	Class 4	SWMGH-4	0.90 or over up to and incl. 8.00

4. Mechanical properties The mechanical properties of steel wires shall be as follows. However, the mechanical properties in the case where the steel wire is zinc coated and then drawn in accordance with 9. are not specified.

4.1 Tensile strength The tensile strength of steel wires shall be subjected to the tests of 10.1 and 10.2, and the resulted values shall be as given in Table 2.

4.2 Elongation When specified by the purchaser, the steel wires of SWMGS-3, SWMGS-4, SWMGS-5, SWMGS-6, and SWMGS-7 shall be subjected to the tests of 10.1 and 10.2, and the elongation values shall be as given in Table 2.

4.3 Torsion characteristic For the torsion characteristic of steel wires, when the steel wires are subjected to the tests of 10.1 and 10.3 and rotated to a number of twisting turns given in Table 2, the steel wires shall not be ruptured. However, a number of twisting turns more than those given in Table 2 may be used as agreed upon between the purchaser and supplier.