

## SECTION 05035

### GALVANIZING

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. Section Includes: All galvanizing of metals when such coating is specified, except as otherwise shown, specified or required.

##### 1.2 REFERENCES

- A. Codes and standards referred to in this Section are:
  - 1. ASTM A 123 - Specification for Zinc-Coated (Hot-Dip Galvanized) Coatings on Iron and Steel Products
  - 2. ASTM A 153 - Specification for Zinc Coating (Hot-Dip) On Iron and Steel Hardware
  - 3. ASTM A 924 - Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process
  - 4. ASTM A 385 - Practice for Providing High-Quality Zinc-Coatings (Hot-Dip)
  - 5. ASTM A 392 - Specification for Zinc-Coated Steel Chain-Link Fence Fabric
  - 6. ASTM A 53 - Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated Welded and Seamless
  - 7. ASTM A 121 - Specification for Zinc-Coated (Galvanized) Steel Barbed Wire
  - 8. ASTM A 143 - Practice for Safeguarding Against Embrittlement of Hot-Dip Galvanized Structural Steel Products and Procedure for Detecting Embrittlement
  - 9. ASTM A 384 - Practice for Safeguarding Against Warpage and Distortion During Hot-Dip Galvanization of Steel Assemblies
  - 10. ASTM B 6 - Specification for Zinc (Slab Zinc)
  - 11. MIL-P-21035B - Paint High Zinc Dust Content, Galvanizing Repair
  - 12. MIL-P-26915C - Primer Coating Zinc Dust Pigmented for Steel Surfaces

#### PART 2 PRODUCTS

##### 2.1 MATERIALS

- A. Standard: Meet the requirements of ASTM B 6 and "Prime Western" grade, or equal, for zinc for galvanizing, zinc coating or plating.

## PART 3 EXECUTION

### 3.1 PREPARATION

- A. General: Blast clean or grind smooth wrought metals and castings. Tumble and grind flush all high spots when a smooth coat is required for castings. Normalize castings to prevent cracking.
- B. Base Metal Cleaning: Thoroughly clean base metal. Remove all welding slag and burrs. Remove surface contaminants and coatings which would not be removable by the normal chemical cleaning process in the galvanizing operation, by blast cleaning, by immersion in a caustic bath, acid pickle and flux or other approved method.
- C. Product Preparation: Fabricate structural steel products and assemblies to be galvanized in accordance with ASTM A 143, A 384, A385 and Class I guidelines as shown in "Recommended Details of Galvanized Structures" as published by American Hot-Dip Galvanizers Association, Inc.

### 3.2 APPLICATION

- A. Hot Dip: Use the hot-dip process for galvanizing as required by the appropriate ASTM and American Hot-Dip Galvanizers Association, Inc. specifications.
  - 1. Do not allow the dipping to come in contact with or rest upon the dross during the operation.
  - 2. Do not use procedures tending to agitate the dross.
- B. Required Facilities: Perform the galvanizing and coating in a plant having the required facilities to produce the quality of coatings specified and with ample capacity for the volume of work required. Handle and ship galvanized material in a manner which will avoid damage to the zinc coating.
- C. Requirements: Perform galvanizing in accordance with the requirements of the following specifications:

	<u>Item</u>	<u>ASTM</u>
1.	Iron and steel products	A 123
2.	Iron and steel hardware	A 153
3.	Chain for chainwheel operators	A 153
4.	Chainwheels and Guides	A 123
5.	Steel sheets	A 924
6.	Assembled products	A 385 & A 123
7.	Steel chain link fence fabric	A 392 Class II
8.	Steel pipe	A 53
9.	Steel barbed wire	A 121

### 3.3 INSTALLATION

- A. Field Coating for Touch-Up: Coat all field welds, abraided areas where damage is more than 3/16-inch wide or uncoated cut edges in material more than 1/10-inch thick with an organic zinc-rich paint complying with MIL-P-21035B or MIL-P-26915C in multiple coats to dry film thickness of 8 mils.

END OF SECTION

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