

ENGINEERING MATERIAL SPECIFICATION

Material Name

Specification Number

STEEL, TERNE COATED - 11.5 % TIN MINIMUM
STEEL, TERNE COATED - 8.0 % TIN MINIMUM

ESA-M1A191-C
ESA-M1A191-D

1. SCOPE

The material defined by this specification is a low carbon steel, coated with terne alloy or a lead-tin composition applied by the hot dip process.

2. APPLICATION

This specification was released originally for fuel filler neck tubes.

3. REQUIREMENTS

3.1 STANDARD REQUIREMENTS FOR PRODUCTION MATERIALS

Material suppliers and part producers must conform to the Company's Standard Requirements For Production Materials (WSS-M99P1111-A).

3.2 BASE METAL

The base metal shall be a low carbon steel capable of being fabricated into the intended formed component.

3.3 TERNE COATING

Continuity and uniformity of the coating is of primary importance since pitting and corrosion of the base metal is objectionable. The quality of the terne coating shall be controlled by the following:

3.3.1 Coating Weight - Triple Spot Average, min 0.15 oz/ft²/side (47g/m²)

(ASTM A 309 - Procedure "D" except strip one side, weigh to obtain coating weight, and repeat for other side. The result shall consist of the average of determinations from three specimens cut from the test sheet or coil, one specimen cut from the middle of the width and one from each side not closer than 50 mm from the coil side edge. No one spot shall be less than 0.10 oz/ft² (30 g/m²)/side.)

Date	Action	Revisions
2002 07 30	Revised	Updated and renumbered
1979 03 02		Released CDJ2-822557-C

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3.3.2	Coating Porosity Density, Average, max (FLTM BQ 5-6)	45 spots/in ² /side) (7 spots/cm ² /side)
3.3.3	Coating Composition, % Tin, min (ASTM A 309 - Procedure "A")	
	"C" Suffix	11.5
	"D" Suffix	8.0

3.4 RETEST

If any test panel fails to meet the requirements of the specification, retest samples shall be taken from two other panels in the same coil and if either of these samples fails to conform to the requirements, the coil shall be rejected.

3.5 TOLERANCES

Unless otherwise specified on the engineering drawing or purchase order, the tolerance must conform to those specified in ASTM A 308.