

MIL-S-11207D
20 August 1979
SUPERSEDING
MIL-S-11207C
5 October 1966

MILITARY SPECIFICATION

STEEL SHEETS, CORRUGATED: 2-1/2-INCH NOMINAL

CORRUGATIONS, PAINTED OR UNPAINTED

This specification is approved for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification covers painted or unpainted corrugated steel sheets.

1.2 Classification. The corrugated steel sheets shall be of the following types, as specified (see 6.2).

Type I - Roofing sheet, edges turned opposite.

Type II - Siding sheet, edges turned in same direction.

1.2.1 Part number. The military specification part number for items described in this specification will be formulated as shown in 6.4.

2. REFERENCED DOCUMENTS

2.1 Issues of documents. The following documents of the issue in effect on date of invitation for bids or request for proposal form a part of this specification to the extent specified herein:

FSC 9515

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: US Army Mobility Equipment Research and Development Command, ATTN: DRDME-DS, Fort Belvoir, VA 22060 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

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SPECIFICATIONS

MILITARY

MIL-T-704

- Treatment and Painting of Materiel.

STANDARDS

MILITARY

MIL-STD-163

- Steel Mill Products, Preparation for Shipment and Storage.

FEDERAL

Fed. Test Method Std. No. 141 - Paint, Varnish, Lacquer, and Related Materials, Methods of Inspection, Sampling, and Testing.

(Copies of specifications and standards required by suppliers in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposals shall apply.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

- | | |
|-------|--|
| A 366 | - Steel, Carbon, Cold-Rolled Sheet, Commercial Quality. |
| A 569 | - Steel, Carbon (0.15 Maximum, Percent). Hot-Rolled Sheet and Strip, Commercial Quality. |
| B 117 | - Salt Spray (Fog) Testing. |

(Application for copies should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.)

3. REQUIREMENTS

3.1 Description. Corrugations on the steel sheets shall be approximately parallel to each other and to the longitudinal edges of the sheet. All sheets shall nest when placed on top of one another and shall fit together when one sheet is overlapping another.

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3.2 Material. Material for the corrugated steel sheets shall conform to ASTM A 366 or A 569 (see 6.4), condition hot or cold rolled as specified (see 6.2), finish optional.

3.3 Corrugations. The corrugations of each sheet shall be the standard 2-1/2-inch nominal size, approximately 2-2/3 inches from center to center, and approximately 1/2 inch deep.

3.4 Out-of-square. The ends of the corrugated steel sheets shall not be out-of-square more than 5/16 inch in the full width.

3.5 Covering width. The covering width of each corrugated sheet shall be 24 inches plus or minus 1/4 inch. The nominal 2 1/2 inch corrugation is 2.66 inches in actual width because nine corrugations measured 24 inches in cover width.

3.6 Treatment and painting. When specified (see 6.2), the corrugated steel sheets shall be cleaned, treated, and painted in accordance with MIL-T-704, Type F, except that the top coat shall be the color and gloss as specified (see 6.2).

3.6.1 Salt fog resistance of coating. The coating applied as in 3.6 shall withstand 300 hours of salt fog treatment in accordance with ASTM B 117 without any visible deterioration of the film, or a lightening or darkening that exceeds more than 10 percent of the original reflectance.

3.6.2 Sand abrasion resistance of coating. The coating top coat shall withstand at least 20 liters of sand per mil of thickness when tested in accordance with Method 6191 of Federal Test Method Standard No. 141.

3.7 Type I, roofing sheet. The Type I roofing sheet shall be of the following dimensions and shall be corrugated with one longitudinal edge turned up and the other turned down.

3.7.1 Width. The width of the sheet after corrugation shall be 27-1/2 inches with a tolerance of plus 1/2 inch or minus 0 inch.

3.7.2 Length. The sheets shall be of the following lengths, as specified (see 6.2):

- (a) 96 inches - Tolerance plus 3/4 inch, minus 0 inch.
- (b) 132 inches - Tolerance plus 1-1/4 inch, minus 0 inch.
- (c) 144 inches - Tolerance plus 1-1/4 inch, minus 0 inch.

3.7.3 Thickness. Unless otherwise specified (see 6.2), the nominal thickness of the 96-inch and the 144-inch unpainted sheets shall be 0.0149 inch (28 gage); and the nominal thickness of the 132-inch unpainted sheets shall be 0.0299 inch (22 gage).

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3.8 Type II, siding sheet. The Type II siding sheets shall be of the following dimensions and shall be corrugated with both longitudinal edges turned in the same direction.

3.8.1 Width. The width of the sheet after corrugation shall be 26 inches with a tolerance of plus 1/2 inch or minus 0 inch.

3.8.2 Length. The sheets shall be of the following lengths, as specified (see 6.2):

- (a) 60 inches - Tolerance plus 1/2 inch, minus 0 inch.
- (b) 108 inches - Tolerance plus 1 inch, minus 0 inch.
- (c) 144 inches - Tolerance plus 1-1/4 inch, minus 0 inch.

3.8.3 Thickness. Unless otherwise specified (see 6.2), the nominal thickness of the unpainted sheets shall be 0.0149 inch (28 gage).

3.9 Workmanship. The corrugated sheets shall be free from laminations, slivers, open seams, mill scale, heavy rolled-in scale, ragged edges, turned down corners, or other extraneous abrasions affecting appearance or serviceability. Painted sheets shall, in addition to the above, be free from blisters, pits, thin spots, runs, streaks, or abrasions, damaging to the coating.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified, the contractor may utilize his own facilities or any commercial laboratory acceptable to the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.2 Classification of inspection. Inspection shall be classified as follows:

- (a) Quality conformance inspection of the corrugated steel sheets (see 4.3).
- (b) Inspection of packaging (see 4.5).

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4.3 Quality conformance inspection.

4.3.1 Lot. Unless otherwise specified (see 6.2), a lot shall consist of 1,000 or less corrugated steel sheets, of the same type, length, and thickness, manufactured from the same melt and submitted for inspection at one time.

4.3.2 Sampling for examination. A sample of thirty corrugated steel sheets shall be selected from each lot. Samples shall be taken at random and sample selection shall be repeated after each new production run.

4.3.3 Examination. Samples selected in accordance with 4.3.2 shall be examined for the characteristics specified in 4.4.1. A sample containing two or more defective sheets shall be cause for rejection of the lot represented.

4.3.4 Tests. Samples selected in accordance with 4.3.2 shall be tested as specified in 4.4.2.1 and 4.4.2.2. Failure of any test shall be cause for rejection of the lot represented.

4.4 Inspection procedure.

4.4.1 Examination. The corrugated steel sheets in each sample shall be examined for the following characteristics as listed in Table I. A sheet containing one or more defects shall constitute a defective sheet.

TABLE I - Examination Schedule-Requirement

Number	Characteristic	Requirement Paragraph
<u>Major</u>		
101	Either material or condition of the sheets not as specified.	3.2
102	Nesting and overlapping not as specified.	3.1
103	Corrugations not as specified.	3.3
104	Sheet ends more than 5/16 inch out-of-square.	3.4
105	Covering width not as specified.	3.5
106	Treatment and painting, when specified (see 6.2), and color not as specified.	3.6, 3.6.1 & 3.6.2
107	The dimensions for Type I roof not as specified for width, length and thickness.	3.7, 3.7.1, 3.7.2 & 3.7.3
108	The dimensions for Type II roof not as specified for width, length and thickness.	3.8, 3.8.1, 3.8.2 & 3.8.3

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TABLE I - Examination Schedule-Requirement (Cont'd)

Number	Characteristic	Requirement Paragraph
<u>Major</u>		
109	Edges for Type I roof sheet not turned in opposite direction.	3.7
110	Edges for Type II siding sheet not turned in same direction.	3.8
111	Workmanship not as specified.	3.9

4.4.2 Tests

4.4.2.1 Salt spray test. Conduct the salt spray (fog) test as in ASTM B 117 on coating for resistance to salt fog, and observe for compliance with 3.6.1.

4.4.2.2 Sand abrasion resistance. Test the coating top coat as in Method 6191 of Federal Test Method Standard No. 141 for resistance to sand abrasion and observe for compliance with 3.6.2.

4.5 Inspection of packaging. The preservation, packing and marking shall be examined to determine compliance with the Quality Assurance Provisions of MIL-STD-163.

5. PACKAGING

5.1 Preservation, packing, and marking. The steel sheets shall be preserved, packed, and marked in accordance with MIL-STD-163, for Level A or Commercial, as specified (see 6.2). Painted sheets shall not be coated with Type A, protective coating.

6. NOTES

6.1 Intended use. The corrugated steel sheets are intended for use as roofing and siding for military temporary buildings and other structures.

6.2 Ordering data. Procurements documents should specify the following:

- (a) Title, number, and date of this specification.
- (b) Type of sheet required (see 1.2).
- (c) Whether hot-rolled or cold-rolled (see 3.2).
- (d) When sheets shall be painted, and color required (see 3.6).
- (e) Length required (see 3.7.2 and 3.8.2).

- (f) Thickness of sheets required, if other than as specified (see 3.7.3 and 3.8.3).
- (g) When lot shall be other than as specified (see 4.3.1).
- (h) Degree of preservation, packing, and marking required (see 5.1).

6.3 Zinc-coated. Zinc-coated corrugated steel sheets are covered in ASTM A 361.

6.4 Definitive military specification part number. The military specification part number corresponds to the corrugated steel sheets covered by this specification and defines the requirements of the options presented under this specification. The military specification number, type code letter, width code letter, length code letter, thickness code letter, and painted code letter (when applicable) are combined to form the definitive military specification part number as shown below:

	M11207	X	X	X	X	P
Military specification number	_____					
Type (see 6.4.1)	_____					
Width (see 6.4.2)	_____					
Length (see 6.4.3)	_____					
Thickness (see 6.4.4)	_____					
Painted (when applicable)	_____					

e.g., M11207AABB is for a Type I, 27 1/2 inch wide, 132 inches long, 0.0299 inch thick roofing sheet that is unpainted.

6.4.1 Type. Type shall be designated as per Table II.

TABLE II. Code letter to Type.

Code Letter	Type
A	Type I Roofing sheet, edges turned opposite
B	Type II Siding sheet, edges turned in same direction

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6.4.2 Width. Width shall be designated as per Table III.TABLE III. Code letter to width.

Code Letter	Width
A	Sheet after corrugation shall be 27 1/2 inches with a tolerance of plus 1/2 inch or minus 0 inch.
B	Sheet after corrugation shall be 26 inch with a tolerance of plus 1/2 inch or minus 0 inch.

6.4.3 Length. Length shall be designated as per Table IV.TABLE IV. Code letter to length.

Code Letter	Length (inches)	Remarks
A	96	Applicable to Type I
B	132	Applicable to Type I
C	144	Applicable to Type I and II
D	60	Applicable to Type II
E	108	Applicable to Type II

6.4.4 Thickness. Thickness shall be designated as per Table VTABLE V. Code letter to thickness.

Code Letter	Length (inches)	Thickness
A		0.0149 inch (28 Gage)
B	132	0.0299 inch (22 Gage)

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6.5 Recycled material. It is encouraged that recycled material be used when practical as long as it meets the requirements of the specification (see 3.2).

6.6 Revision changes. Asterisks are not used in this revision to identify changes with respect to the previous issue, due to the extensiveness of the changes.

Custodians:

Army - ME

Air Force - 99

Preparing activity:

Army - ME

Project 9515-0291

Review activities:

DLA - IS

Other - NS

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSALOMB Approval
No. 22-R255

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DOCUMENT IDENTIFIER AND TITLE MIL-S-11207D Steel Sheets, Corrugated:
2-1/2-Inch Nominal Corrugations, Painted or Unpainted

NAME OF ORGANIZATION AND ADDRESS

CONTRACT NUMBER

MATERIAL PROCURED UNDER A

☐ DIRECT GOVERNMENT CONTRACT ☐ SUBCONTRACT

1. HAS ANY PART OF THE DOCUMENT CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE?

A. GIVE PARAGRAPH NUMBER AND WORDING.

B. RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES

NO. 11207D
MIL-S-11207D
STEEL SHEETS, CORRUGATED
2-1/2 INCH NOMINAL CORRUGATIONS
PAINTED OR UNPAINTED

2. COMMENTS ON ANY DOCUMENT REQUIREMENT CONSIDERED TOO RIGID

3. IS THE DOCUMENT RESTRICTIVE?

☐ YES ☐ NO (If "Yes", in what way?)

4. REMARKS

SUBMITTED BY (Printed or typed name and address - Optional)

TELEPHONE NO.

DATE

DD FORM 1426
1 JAN 72

REPLACES EDITION OF 1 JAN 66 WHICH MAY BE USED