



Designation: A 793 – 96 (Reapproved 2001)

Standard Specification for Rolled Floor Plate, Stainless Steel¹

This standard is issued under the fixed designation A 793; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

This standard has been approved for use by agencies of the Department of Defense.

1. Scope

1.1 This specification covers stainless steel floor plates $\frac{1}{2}$ in. and under for use in galley spaces, washrooms, engine rooms, and machinery spaces, and for ladder treads, gun platforms, and deck treads. For these uses, Patterns A, B, and C are considered interchangeable (see Fig. 1, Fig. 2, and Fig. 3).

1.2 The values stated in inch-pound units are to be regarded as the standard.

2. Referenced Documents

2.1 ASTM Standards:

A 340 Terminology of Symbols and Definitions Relating to Magnetic Testing²

A 370 Test Methods and Definitions for Mechanical Testing of Steel Products³

A 480/A 480M Specification for General Requirements for Flat-Rolled Stainless and Heat-Resisting Steel Plate, Sheet, and Strip³

A 700 Practices for Packaging, Marking, and Loading Methods for Steel Products for Domestic Shipment⁴

2.2 Military Standards:

MIL-I-17214 Indicator, Permeability; Low Mu (Go-NoGo)⁵

MIL-STD-163 Preservation of Steel Products for Domestic Shipment (Storage and Overseas Shipment)⁵

3. Ordering Information

3.1 It is the responsibility of the purchaser to specify all requirements that are necessary for material ordered under this specification. Such requirements may include, but are not limited to, the following:

3.1.1 Quantity—number of pieces,

3.1.2 Dimensions (thickness, width, and length, see Table 1),

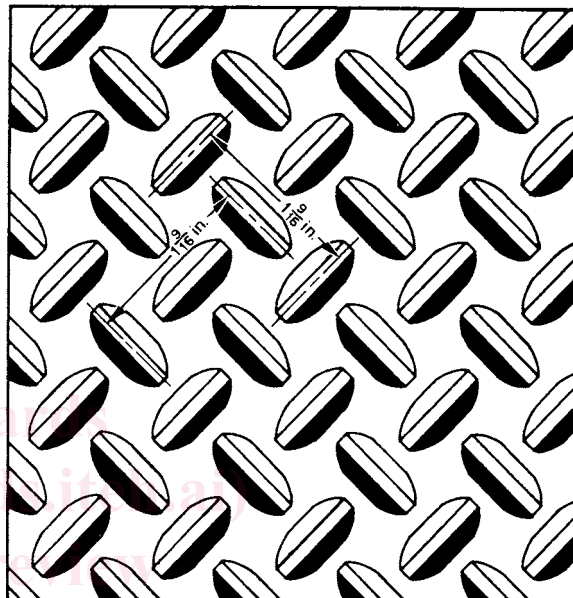


FIG. 1 Pattern A (percent of reduction, 61 %)

3.1.3 Name of material (stainless steel floor plate),

3.1.4 Grade (see Table 2),

3.1.5 Flat back or hollow back (See Table 1),

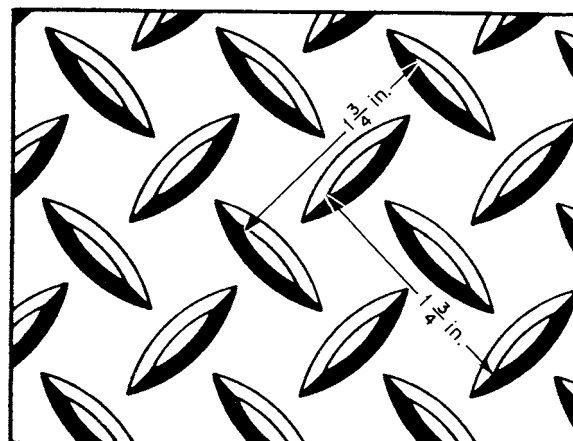


FIG. 2 Pattern B (original of raised figures approximately $\frac{1}{4}$ in., percent of reduction 61 %)

¹ This specification is under the jurisdiction of ASTM Committee A01 on Steel, Stainless Steel, and Related Alloys, and is the direct responsibility of Subcommittee A01.17 on Flat Rolled and Wrought Stainless Steel.

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² Annual Book of ASTM Standards, Vol 03.04.

³ Annual Book of ASTM Standards, Vol 01.03.

⁴ Annual Book of ASTM Standards, Vol 01.05.

⁵ Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.

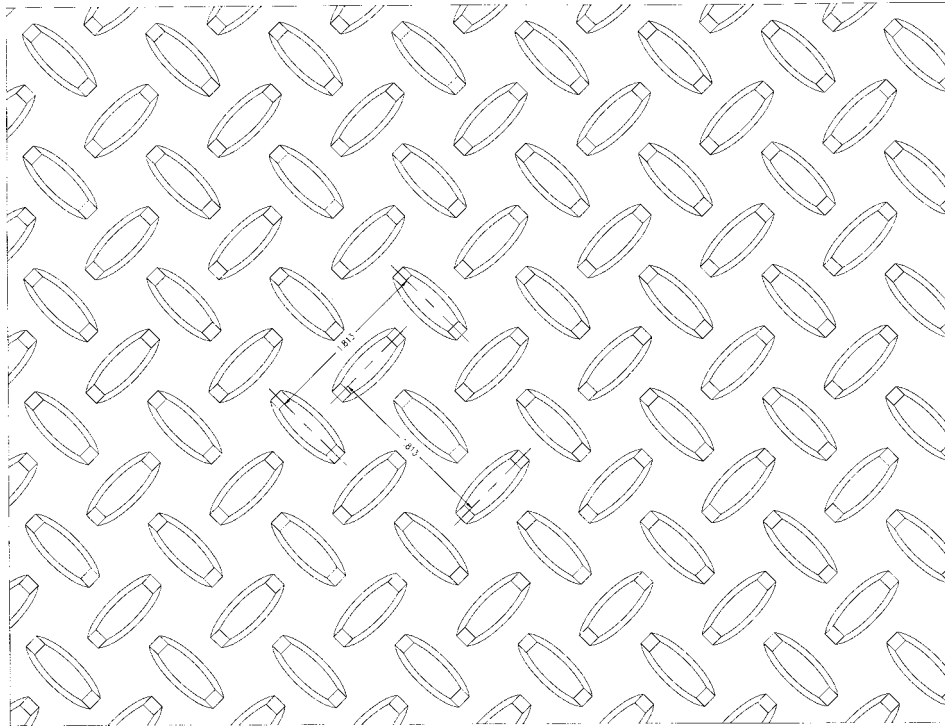


FIG. 3 Pattern C

TABLE 1 Dimensions, Weights, and Special Characteristics of Patterns A, B, and C

| Thickness of Plate at Base of Raised Figure (Nominal), in. (mm) | Thickness of Plate at Base of Raised Figure, min. in. (mm) | Hollow Back | | Flat Back | |
|-----------------------------------------------------------------|------------------------------------------------------------|----------------------------------------------------------------------------|-----------------------------------------|----------------------------------------------------------------------------|-----------------------------------------|
| | | Weight (Approximate), lb/ft ² (kg/m ²) ^A | Height of Raised Figures, min. in. (mm) | Weight (Approximate), lb/ft ² (kg/m ²) ^A | Height of Raised Figures, min. in. (mm) |
| 0.025 (0.64) | 0.015 (0.38) | 1.10 (5.37) | 0.025 (0.64) | ... | ... |
| 0.03125 (0.79) | 0.02125 (0.54) | 1.40 (6.84) | 0.025 (0.64) | ... | ... |
| 0.0375 (0.95) | 0.027 (0.69) | 1.65 (5.69) | 0.025 (0.64) | ... | ... |
| 0.05 (1.27) | 0.039 (0.99) | 2.30 (11.23) | 0.035 (0.89) | ... | ... |
| 0.0625 (1.59) | 0.051 (1.30) | 2.90 (14.16) | 0.035 (0.89) | ... | ... |
| 0.078 (1.98) | 0.063 (1.60) | 3.50 (17.09) | 0.035 (0.89) | ... | ... |
| 0.09375 (2.38) | 0.079 (2.01) | 3.938 (19.23) | 0.035 (0.89) | 4.875 (23.80) | 0.035 (0.89) |
| 0.109 (2.77) | 0.096 (2.44) | 4.59 (22.41) | 0.030 (0.76) | 5.50 (26.85) | 0.045 (1.14) |
| 0.125 (3.18) | 0.110 (2.79) | 5.25 (25.64) | 0.030 (0.76) | 6.125 (23.90) | 0.055 (1.40) |
| 0.140 (3.56) | 0.126 (3.20) | ... | ... | 6.75 (32.96) | 0.055 (1.40) |
| 0.156 (3.96) | 0.141 (3.58) | ... | ... | 7.375 (36.01) | 0.055 (1.40) |
| 0.172 (4.37) | 0.157 (3.99) | ... | ... | 8.000 (39.06) | 0.055 (1.40) |
| 0.1875 (4.76) | 0.173 (4.39) | ... | ... | 8.625 (42.11) | 0.060 (1.52) |
| 0.203 (5.16) | 0.189 (4.80) | ... | ... | 9.25 (45.16) | 0.060 (1.52) |
| 0.218 (5.54) | 0.204 (5.18) | ... | ... | 9.875 (48.21) | 0.060 (1.52) |
| 0.234 (5.94) | 0.219 (5.56) | ... | ... | 10.50 (51.27) | 0.060 (1.52) |
| 0.250 (6.35) | 0.235 (5.97) | ... | ... | 11.125 (54.32) | 0.060 (1.52) |

^A Approximate weights are shown for estimating convenience.

TABLE 2 Heat Chemical Composition, %

| Type | UNS Designation | C, max | Mn, max | P, max | S, max | Si, max | N, max | Ni | Cr | Mo |
|------|-----------------|--------|---------|--------|--------|---------|--------|-------------|-------------|-----------|
| 304 | S30400 | 0.08 | 2.00 | 0.045 | 0.030 | 0.75 | 0.10 | 8.00–10.50 | 18.00–20.00 | ... |
| 304L | S30403 | 0.030 | 2.00 | 0.045 | 0.030 | 0.75 | 0.10 | 8.00–12.00 | 18.00–20.00 | ... |
| 316 | S31600 | 0.08 | 2.00 | 0.045 | 0.030 | 0.75 | 0.10 | 10.00–14.00 | 16.00–18.00 | 2.00–3.00 |
| 316L | S31603 | 0.030 | 2.00 | 0.045 | 0.030 | 0.75 | 0.10 | 10.00–14.00 | 16.00–18.00 | 2.00–3.00 |

- 3.1.6 Surface finish (see Specification A 480/A 480M),
- 3.1.7 Special requirements, such as magnetic permeability test (see 6.3),
- 3.1.8 ASTM designation and date of issue,

- 3.1.9 Preparation for delivery, if different from Specification A 480/A 480M, and
- 3.1.10 Marking requirements, if different from Specification A 480/A 480M.