

FP-N-105B
INT. AMENDMENT 4
August 23, 1977
USED IN LIEU OF
AMENDMENT 3
October 4, 1974

INTERIM AMENDMENT TO FEDERAL SPECIFICATION

**NAILS, BRADS, STAPLES AND SPICES:
WIRE, CUT AND WROUGHT**

This interim amendment was developed by U.S. Army Armament Research and Development Command, ATTN: DRDAR-TST, Rock Island, IL 61201, based upon currently available technical information. It is recommended that Federal agencies use it in procurement and forward recommendations for changes to the preparing activity at the address shown above.

The General Services Administration has authorized the use of this interim amendment as a valid exception to Federal Specification FP-N-105B.

Page 3

Paragraph 2.2: Add the following ASTM standards:

- "ASTM A641 - Zinc-coated (Galvanized) Carbon Steel Wire.
- ASTM B487 - Measurement of Metal and Oxide Coating Thicknesses by Microscopical Examination of a Cross Section
- ASTM B499 - Measurement of Coating Thicknesses by the Magnetic Method: Nonmagnetic Coatings on Magnetic Basis Metals"

Page 5

Paragraphs 3.2.1, 3.2.1.1, 3.2.1.2, and 3.2.1.3: Delete in their entirety and substitute the following:

"3.2.1 Zinc coating.

a. Hand driven staples or nails required to be zinc coated shall be cut and formed from hot dip galvanized steel wire, electrogalvanized steel wire, mechanically deposited zinc coated steel wire, or zinc flake/chromate dispersion coated steel wire or cut from uncoated (bright) steel wire and shall be hot dip galvanized, electrodeposited zinc coated, mechanically deposited zinc coated or zinc flake/chromate dispersion coated after forming.

b. Power or mechanically driven staples required to be zinc coated shall be cut and formed from hot dip galvanized, asbestos wiped steel wire, electrogalvanized steel wire, mechanically deposited zinc coated steel wire or zinc flake/chromate dispersion coated steel wire.

FSC 5315

FF-N-105B

INT. AMENDMENT 4

c. Power or mechanically driven nails required to be zinc coated shall be cut and formed from hot dip galvanized, asbestos wiped steel wire, electrogalvanized steel wire, mechanically deposited zinc coated steel wire or zinc flake/chromate dispersion coated steel wire or cut from uncoated (bright) steel wire and shall be hot dip galvanized, electrodeposited zinc coated, mechanically deposited zinc coated or zinc flake/chromate dispersion coated after forming.

3.2.1.1 Galvanizing.

a. Wire - Hot dip galvanized wire shall be in accordance with ASTM A641, Class 1 coating.

b. After forming. Hot dip galvanizing after forming shall be in accordance with ASTM A153. The coating weight shall be in accordance with ASTM A641, Class 1 coating.

3.2.1.2 Mechanically deposited. Mechanically deposited zinc coating shall be in accordance with MIL-C-81562, Type II. The coating weight shall be in accordance with ASTM A641, Class 1 coating.

3.2.1.3 Electrogalvanized (electrodeposited).

a. Wire - Electrogalvanized wire shall be in accordance with ASTM A641, Class 1 coating.

b. After forming - Electrodeposited zinc coating shall be in accordance with QQ-Z-325, Type I. The coating weight shall be in accordance with ASTM A641, Class 1 Coating.

3.2.1.4 Zinc flake/chromate dispersion. Zinc flake/chromate dispersion immersion coating is a proprietary process identified by the registered trademark "DACROMET 320" and is covered by U.S. Patents (see 6.5). This coating consists of a dispersion of zinc flake in an aqueous solution containing chromium and proprietary organic materials. The coating shall be applied either to the steel wire before forming or to the finished item after forming. Coating thickness shall be 0.00023-0.00027 inch.

3.2.1.5 Hand driven staples and nails may be furnished with a heavier zinc coating than as specified above."

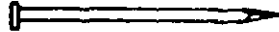
Page 9

Paragraph 3.6.5, first line - Delete "style 4" and substitute "style 4A".

Add the following new paragraph:

FF-N-105B
INT. AMENDMENT 4

3.6.5.1 Type II, style 4B - Box nails. Steel wire, flat head, diamond point, round smooth shank, cement coated.



S	L	D	H	NO./LB	S	L	D	H	NO./LB
2d	1	.058	.172	1,252	7d	2-1/8	.086	.250	280
3d	1-1/8	.062	.188	978	8d	2-3/8	.099	.266	190
4d	1-3/8	.067	.203	680	9d	2-5/8	.099	.266	172
5d	1-5/8	.072	.219	510	10d	2-7/8	.113	.297	119
6d	1-7/8	.086	.250	315					

Page 11

Paragraph 3.6.11.1: Delete in its entirety and substitute the following:

3.6.11.1 Type II, style 10 - Common nails. Copper wire, flat head, diamond point, round smooth shank.

L	D	H	NO./LB	L	D	H	NO./LB
5/8	.065	.156	1,380	2	.120	.266	130
3/4	.065	.156	1,160	2	.134	.281	106
3/4	.072	.172	956	2-1/2	.134	.281	86
7/8	.072	.172	808	3	.148	.312	56
1	.072	.172	704	3-1/2	.165	.344	40
1-1/4	.083	.203	424	4	.203	.406	23
1-1/2	.109	.250	208	4-1/2	.220	.438	18
1-3/4	.109	.250	180	5	.238	.469	14
1-3/4	.120	.266	144	6	.284	.531	8

Page 23

Table IV-A: Delete the section of the table specifying tolerances and substitute the following:

18 Gage (.0475)	[.0395 ± .0020T]	X	[.0490 ± .0020W]
16 Gage (.0625)	[.0560 ± .0020T]	X	[.0635 ± .0020W]
*16 Gage (.0625)	[.0460 ± .0020T]	X	[.0700 ± .0020W]
15 Gage (.0720)	[.0660 ± .0020T]	X	[.0740 ± .0020W]
14 Gage (.0800)	[.0735 ± .0040T]	X	[.0855 ± .0040W]
12 Gage (.1055)	[.0935 ± .0040T]	X	[.1120 ± .0040W]
10 Gage (.1350)	[.1250 ± .0040T]	X	[.1400 ± .0040W]

* "Special" wire tolerances after forming for the attachment of composition asphalt shingles. Staples manufactured to these tolerances are for non-structural use only.

FF-N-105B
INT. AMENDMENT 4

Page 24

Add the following to Table IV-B:

CROWN WIDTH	.435 \pm .015				.180 \pm .015			
WIRE** SIZE	.020T X .030W		.020T X .040W		.020T X .030W		.020T X .040W	
LEG LENGTH	3/16		1/4		3/8		3/8	
	1/4	+1/32	5/16	+1/32	1/2		1/2	
	5/16	-1/64	3/8	-1/64	9/16	+1/32	9/16	
	3/8		1/2		5/8	-1/64	5/8	+1/32
	1/2				3/4		3/4	-1/64
					7/8		7/8	
							1 1-1/8	

Page 34

Paragraph 4.4.2, first sentence: After "3.2.1.2" add "and 3.2.1.3".

Paragraph 4.4.2.1: Delete in its entirety and substitute the following:

"4.4.2.1 Zinc coating (thickness). Samples selected in accordance with 4.2.2.2 shall be tested for coating thickness to determine conformance to 3.2.1.4. The tests shall be conducted in accordance with ASTM B487 or ASTM B499. For referee purposes, ASTM B487 shall be used."

Page 39

Add the following new paragraph:

"6.5 'DACROMET 320' is a registered trademark of the Diamond Shamrock Corporation, Metal Coatings Division, P. O. Box 127, Chardon, OH 44024. Information regarding this coating process may be obtained from them."

Military Custodian:
Army - WC

Preparing Activity:
Army - NC