

### AMMUNITION IDENTIFICATION BY MARKINGS AND COLOR CODING

Ammunition is identified by markings and color coding on the items themselves, the containers, and the packing boxes. In this appendix color codings are presented in greater detail than markings because they are a more ready means of identification. The markings, the standard nomenclature of each item, together with its lot number, Federal Supply Class (FSC), national stock number (NSN), Department of Defense Identification Code (DODIC), and Department of Defense Ammunition Code (DODAC), completely identify each item and are used to maintain accountable records. Communications between ammunition units frequently use an ammunition item's DODIC; for instance, A071, which is 5.56 small arms ammunition (see SB 708-3). Color coding can be used as a quick way to visually check and identify

ammunition. Look in TM 9-1300-200 and MIL-STD-709C for more details. This appendix also gives a basic explanation of markings and color coding.

## **MARKINGS**

### **AMMUNITION LOT NUMBER**

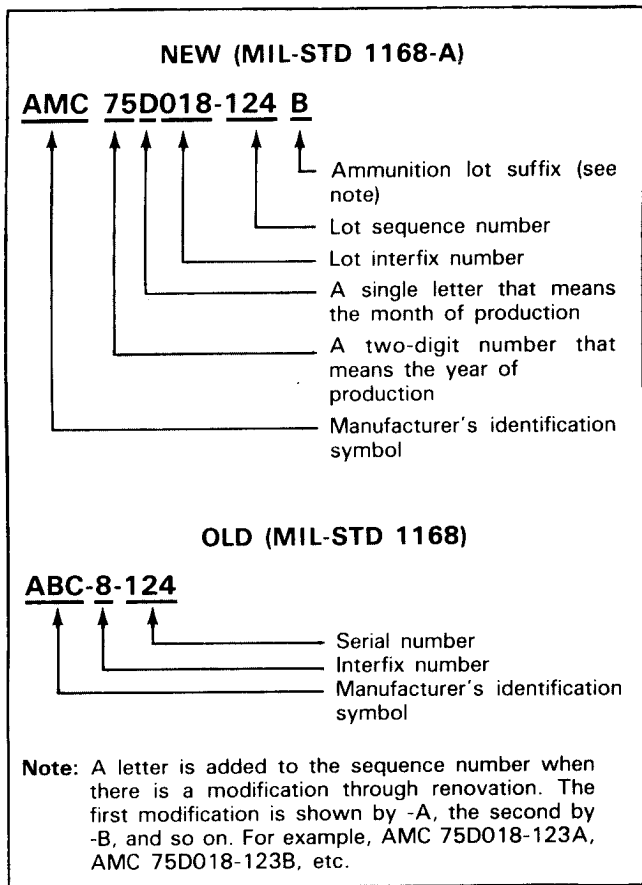
Each item of ammunition is assigned a complete round or item lot number when it is manufactured or is at the load and assembly (LAP) plant. See MIL-STD 1168-A for complete description of the current system. See MIL-STD 1168 for a complete discussion of the old lot numbering system. Figure D-1 is a basic break-down of a typical ammunition lot number showing both the new and the old systems.

### **CONVENTIONAL AMMUNITION FEDERAL SUPPLY CLASSES**

Conventional ammunition is Federal Supply Group 13. Within this group, ammunition is further broken down by two more numbers that identify the general type or family the item falls into. Table D-1 is a list of FSCs.

### **CONVENTIONAL AMMUNITION NATIONAL STOCK NUMBERING (NSN) SYSTEM**

Each complete round or item of conventional ammunition or associated explosive component is identified by its own national stock number (NSN). A conventional ammunition NSN is made up of the FSC, a two-number code of the country that makes the item, and the seven-number National Item Identification Number (NIIN). See Figure D-2.



**Figure D-1. Typical Lot Number System, and MIL- STD 1168.**

Table D-1. Federal Supply Catalog Group 13 Classes.

FSC Group 13 (classes)	Ammunition and Explosive Type or Family
1305	Ammunition, through 30mm
1310	Ammunition, over 30mm up to 75mm
1315	Ammunition 75mm through 125mm
1320	Ammunition, over 125mm
1330	Grenades
1340	Rockets and rocket ammunition
1345	Land mines
1365	Military chemical agents
1370	Pyrotechnics
1375	Demolition materials
1376	Bulk explosives
1377	Cartridge and propellant actuated devices and components
1390	Fuzes and primers
1395	Miscellaneous ammunition
1398	Specialized ammunition handling and servicing equipment

**Note:** There are other FSC groups, but they are for Class V material outside of the US Army ammunition inventory. (Look in any current copy of the DOD ammunition listing, volumes 1 through 3 for more information.)

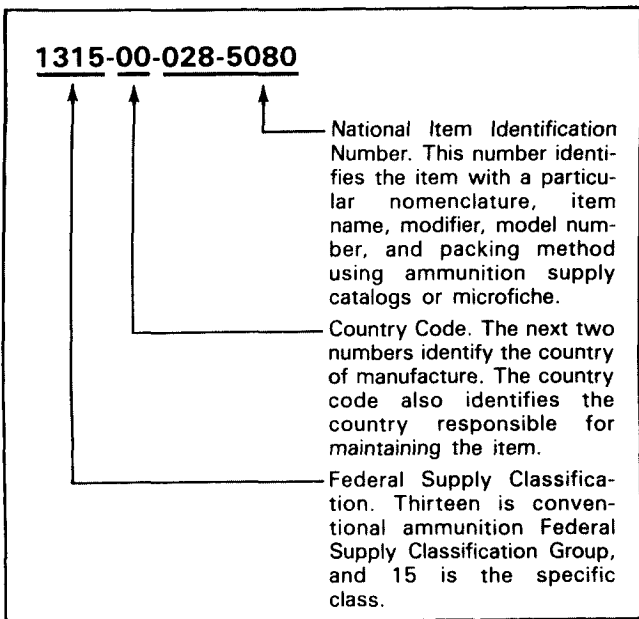


Figure D-2. Example of a National Stock Number.

**Department of Defense Identification Code (DODIC).** A DODIC is a single letter and three numbers or two letters and two numbers in the case of small guided missiles. It is attached at the end of all NSNs to denote interchangeability of the item. Figure D-3 shows a conventional NSN with DODIC added showing interchangeability between various model numbers and the designators of an ammunition item.

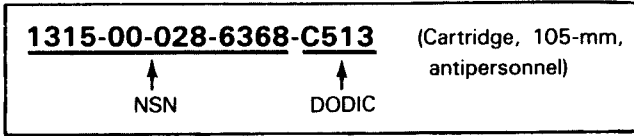


Figure D-3. Sample DODIC.

**Department of Defense Ammunition Code (DODAC).** This code includes the FSC of the ammunition, and the DODIC. The code is used on all using-unit DD Forms 581 (Request for Issue and Turn-In), DA Form 3151-R (Ammunition Stores Slip), and most ammunition reports. It is used instead of the DODIC to reduce errors with ammunition transactions. See Figure D-4.

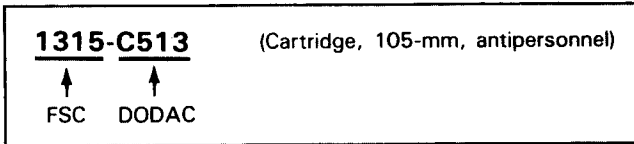


Figure D-4. Example of a DODAC.

## COLOR CODING

The main reason ammunition is painted is to protect it from rust. But, at the same time, the color of the protective coating and markings makes ammunition items easy to identify and provides some camouflage. Ammunition 20mm and larger is color-coded IAW MIL-STD 709C (See Tables D-2 and D-3 pp 152 and 154). Figure D-5 shows typical markings for an artillery round of ammunition.

## Appendix D

Small arms ammunition is not color coded under MIL-STD 709C; however, either the small arm projectiles themselves or at least the bullet tips are painted a distinctive color so they can be identified at a glance. Figures D-6 through D-13 show the color codes for types of small arms ammunition up to and including .50 caliber. See also TM 9-1300-200 for more details.

The following significant features of the current color coding standard should be noted:

- **Olive Drab (OD).** With yellow markings, olive drab indicates an HE round. However, OD is also being used as a basic color for certain new rounds such as improved conventional munitions (ICM), the flechette antipersonnel round, and some new illumination rounds for specific field artillery weapons.
- **Overpacking.** Ammunition overpacked in color coded bombs, in unit dispensers, or in warheads will not be color coded.
- **Camouflage.** Ammunition containing toxic chemical, incapacitating, or riot control chemical agents shall never be camouflaged by painting.
- **Standard Department of Defense (DOD) Ammunition Color Code.** The present standard ammunition color code for 20mm and larger ammunition is in MIL-STD 709C. Be aware, though, that there is still ammunition coded as specified by MIL-STD 709-B and MIL-STD 709-A. If this might be the case, see the appropriate MIL-STD or TM 9-1300-200.

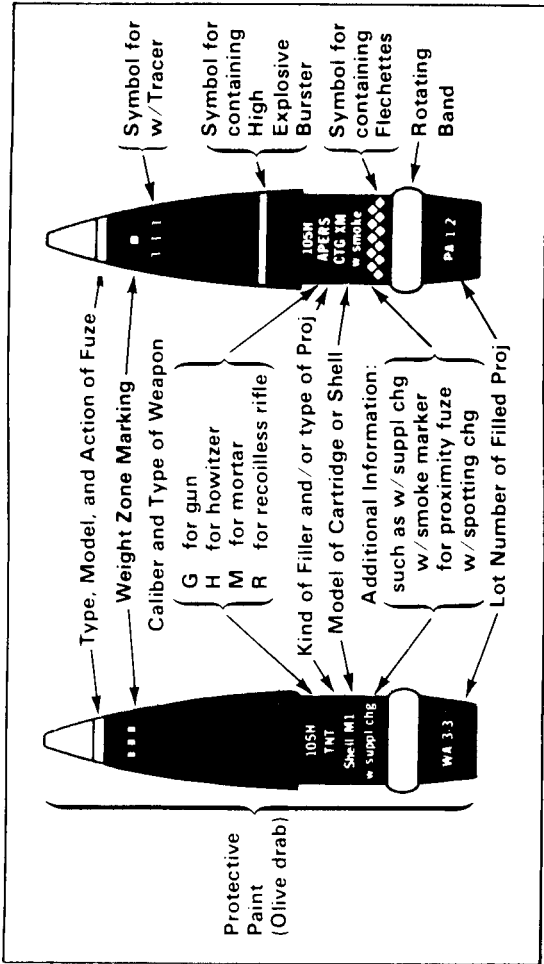


Figure D-5. Typical Artillery Markings.



Table D-2. Ammunition Color Code, MIL-STD 709C

Color <sup>1,2</sup>	Fed. Std No. 595	Interpretation
Yellow	33538	Identifies high-explosive (HE) ammunition or indicates the presence of a high explosive.
Brown	30117 or 30140	Identifies low-explosive items of components or indicates a low explosive. Normally a brown band around the item.
Gray <sup>3,4</sup>	36231	Identifies chemical ammunition containing a toxic chemical incapacitating or riot control agent. Used as a basic color.
Dark red	31136	Identifies a riot control agent filler.
Dark green <sup>3</sup>	34108	Identifies a toxic chemical agent filler. Used for markings and bands.
Violet	17100	Identifies an incapacitating agent filler. Used for markings or bands.
Black <sup>3,5</sup>	37038	Identifies armor defeating ammunition or indicates armor defeating capability.
Silver/aluminum	17178	Identifies countermeasure ammunition (e.g., radar echo, leaflets).
Light green <sup>3</sup>	34558 or 34449	Identifies screening or marking smoke ammunition.

Light red	31158	Identifies incendiary ammunition or indicates highly flammable material (liquids, jellies, solids) that produces damage by fire.
White <sup>3,5,6</sup>	37875	Identifies illuminating ammunition or ammunition that produces a colored light.
Light blue	35109	Identifies practice ammunition.
Orange	32246	May be used to identify ammunition used for tracking and recovery in tests or in training operations (e.g. underwater mines and torpedos).
Bronze, gold, brass	17043	Identifies completely inert ammunition for use in activities such as assembly, testing, handling, drills, etc., and not to be delivered in a delivery system.

**Footnotes:** The following have no color coding significance:

1. Colors specifically applied to identify the color of smoke ammunition or pyrotechnics.
2. Unpainted or natural color ammunition.
3. Gray, black, green, or white on underwater ammunition.
4. Gray on air-launched missiles.
5. Black or white when used for lettering or special marking.
6. White on guided missiles, dispensers, and rocket launchers.

Table D-3. Application of Color Codes for Particular Ammunition Items, MIL-STD 709C.

Ammunition	Colors		
	Body	Markings <sup>1</sup>	Bands
High explosive (HE), except 20mm	Olive drab	Yellow	Yellow <sup>2,3,4,5</sup>
High explosive (HE), 20mm	Yellow	Black	None
Explosive binary munitions	Olive drab	Yellow	Broken yellow <sup>6</sup>
High explosive plastic (HEP)	Olive drab	Yellow	Black
High explosive antitank (HEAT)	Black	Yellow	None
Antipersonnel and antitank mines	Olive drab	Yellow	Yellow <sup>3</sup>
Incendiary	Light red	Black	None
High explosive incendiary (HEI)	Yellow	Black	Light red
Armor piercing incendiary (API)	Black	White	Light red
Armor piercing (AP)	Black	Yellow	None
With bursting charge	Black	White	None
Without bursting charge	Olive drab	White	None
Canister	Olive drab	White	White <sup>7</sup>
Flechette-loaded	Olive drab	White	Yellow <sup>8</sup>

**Footnotes:**

1. Color of the letters and figures normally used for the main identification.
2. Circumferential band of yellow diamond-shaped figures on semifixed and separate-loading improved conventional munitions.
3. Circumferential band of yellow triangular-shaped figures on mass scatterable mine and loaded semifixed and separate-loading ammunition.
4. Separate loading ammunition for shipboard use has a circumferential yellow band besides yellow markings.
5. Bombs have one yellow band except thermally protected bombs, which have two yellow bands besides yellow markings.
6. Circumferential broken yellow band (one-half-inch segments with one-half-inch gaps) on explosive binary munitions.
7. Circumferential band of white diamond-shaped figures on ammunition containing flechettes.
8. Yellow band put on when the ammunition contains explosives used to fracture the projectile.

*(continued)*






Table D-3. (continued)




Ammunition	Colors		
	Body	Markings <sup>1</sup>	Bands
Chemical Filled with a toxic chemical binary nerve agent	Gray	Dark green	One broken dark green <sup>9,10,11</sup>
Illuminating Separate loading Fixed or semifixed	Olive drab White	White Black	White None
Practice With low explosive to indicate functioning With high explosive to indicate functioning			Brown Yellow
Without explosive to indicate functioning			None
Screening or marking			
Smoke ammunition Filled with other than white phosphorus Filled with white phosphorus	Light green Light green	Black Light red	None Yellow <sup>9</sup> Light red <sup>12</sup>

Inert ammunition not designed to be delivered in a delivery system.	Bronze	Black	None
Chemical			
Filled with a riot control agent	Gray	Red	One red <sup>9</sup>
Filled with an incapacitating agent	Gray	Violet	One violet <sup>9</sup>
Filled with a toxic chemical agent other than binary agents.	Gray	Dark green	One dark green <sup>9</sup>
Filled with a toxic chemical binary nerve agent	Gray	Dark green	One broken dark green <sup>9,10</sup>

**Footnotes:**

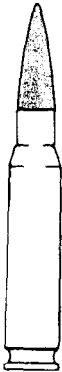


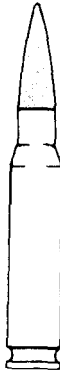

9. Yellow band put on to indicate high-explosive burster.
10. Toxic chemical agent ammunition containing a binary nerve agent filling shown by a broken dark-green band (one-half-inch segments separated by one-half-inch spaces).
11. Both color applications are standard. However, for land ammunition use, separate loading ammunition is olive drab for overall body color with a white band and main identification details marked white. Fixed and semifixed ammunition is white for overall body color with main identification details in black.
12. Separate loading ammunition for shipboard use has black markings and a light-red band.

Type	Characteristics
<p>Ball</p> 	None
<p>Ball heavy cartridge, for M16A2 and SAW</p> 	Green
<p>Rifle grenade</p> 	Red rose petal crimp
<p>Tracer</p> 	Orange for M856 cartridge for M16A2 rifle; red for M196 cartridge for M16A1
<p>High-pressure test (HPT)</p> 	Plain tip/silver cartridge case

<p>Dummy</p> 	<p>Copper colored cartridge with fluted case, no primer</p>
<p>Blank</p> 	<p>Rose petal crimped case with groove around cartridge case, no primer composition and no bullet</p>
<p>Dummy, Inert-loaded</p> 	<p>Total cartridge black</p>
<p><b>Notes:</b></p> <ol style="list-style-type: none"> <li>1. Heavy ball cartridge for the M16A2 rifle is not designed to fire accurately in the M16A1 rifle.</li> <li>2. Light ball cartridge is authorized only for rifle M16A1.</li> <li>3. Rifle grenade cartridge may have various colors applied to the rose-petal crimp.</li> <li>4. HPT cartridge has "HPT" embossed on head.</li> <li>5. The only clear feature of the blank cartridge is the groove.</li> </ol>	

**Figure D-6. 5.56-mm Cartridges.**







Type	Characteristics
<p>Ball</p> 	<p>No color</p>
<p>Armor-piercing (AP)</p> 	<p>Black</p>
<p>Tracer</p> 	<p>Orange</p>
<p>High-pressure Test (HPT)</p> 	<p>Silver cartridge case with ball bullet</p>
<p>Dummy</p> 	<p>Copper colored cartridge with case ridges or flutes, no primer</p>

Blank	No bullet, long slender nose
Match	"MATCH" stamped on case head
Ball, frangible	Green bullet tip with white ring
Dummy, inert-loaded	Cartridge all black
Duplex	Green

Figure D-7. 7.62-mm Cartridges.

Type	Characteristics
Ball	None

**Figure D-8. 9-mm Cartridge.**

<p data-bbox="236 1209 260 1253">Ball</p> 	<p data-bbox="298 382 322 445">None</p>
<p data-bbox="394 1075 450 1253">Armor-piercing (AP)</p> 	<p data-bbox="453 382 477 445">Black</p>
<p data-bbox="539 1124 595 1253">Incendiary (INC)</p> 	<p data-bbox="598 393 622 445">Blue</p>
<p data-bbox="684 1114 708 1253">Tracer (TR)</p> 	<p data-bbox="751 268 774 445">Orange or red</p>






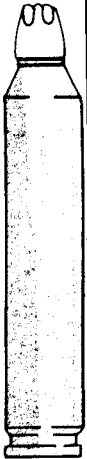



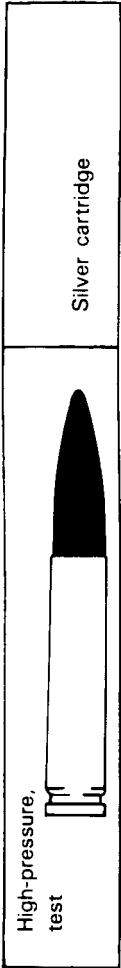
<p>High-pressure, test</p> 	<p>Silver cartridge case with "HPT" stamped on head</p>
<p>Ball, frangible</p> 	<p>Green tip with white ring</p>
<p>Blank</p> 	<p>No bullet, red paper disk in cartridge case mouth</p>
<p>Dummy</p> 	<p>Ridged cartridge case or holes in cartridge case, no primer</p>
<p><b>Note:</b> Caliber .30 rifle ammunition is no longer standard. However, assets may still exist in the foreign sales program.</p>	

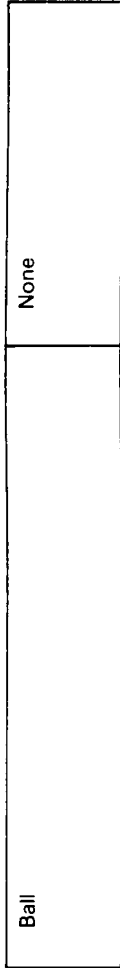
Figure D-9. Caliber .30 Cartridges, Colors and Shapes.

# Appendix D

Type	Characteristics
<p>Grenade</p> 	<p>Rose petal crimp</p>
<p>Rifle grenade</p> 	<p>Rose petal crimp</p>
<p>Ball</p> 	<p>No color</p>
<p>Tracer</p> 	<p>Orange or red</p>
<p>Dummy</p> 	<p>No color, hole in cartridge case</p>



**Figure D-10. Caliber .30 Carbine Cartridges, Colors and Shapes.**



**Figure D-11. Caliber .38 Cartridge.**

Type	Characteristics
Ball	None
Tracer (TR)	Orange or red
Dummy	Holes in cartridge case
Blank	None
High-pressure test	Silver cartridge

Figure D-12. Caliber .45 Cartridges.

## Appendix D









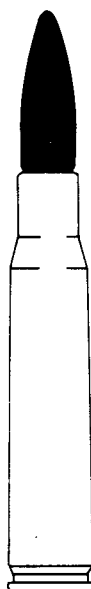
Type	Characteristics
Ball 	No color
Armor-piercing (AP) 	Black
Armor-piercing incendiary (API) 	Silver
Armor-piercing incendiary w/tracer (API-T) 	Red with silver ring
Incendiary (INC) 	Blue or dark blue with light blue ring
Tracer (TR) 	Orange, brown, red, or purple
Dummy 	Holes drilled in case
Blank 	No bullet, red sealer disk in cartridge case mouth
High-pressure test (HPT) 	Silver cartridge case, "HPT" stamped on head
<b>Notes:</b> <ol style="list-style-type: none"> <li>Current color tip code for new tracer cartridges is orange.</li> <li>Color tip for incendiary cartridge depends on cartridge model or type designator as found in the supply catalogs or microfiche.</li> </ol>	

Figure D-13. Caliber .50 Cartridges.