

# As real as you can get™

WITH 9 MM AND .38 CAL. FX® MARKING CARTRIDGES

FX® - the world's most interactive combat training system for the ultimate level of realism!

The FX® Marking Cartridges are the core of this training system with their unique telescopic design and patented reduced-energy technology. These non-lethal rounds are fired with a weapon conversion kit for safe and reliable training.

# FX®

### The FX® Marking Cartridges have many impressive features:

- Designed for military, law enforcement and approved range programs
- Non-toxic and non-lethal projectile
- Detergent-based, water-soluble color marking compound
- Choice of 6 colors: red, blue, green, orange, white and yellow. FX® Non-Marking also available
- Visible and physical impacts awareness allow accurate assessment of simulated lethality
- Tactically accurate for close ranges
- Realistic recoil
- No special ballistic infrastructure is required
- Optimal for training any time, any place, indoors and outdoors
- Used with FX® protective equipment including mandatory head, throat and groin protection

### In addition, the Simunition® conversion kits:

- User-installed temporary weapon conversion; no tools required
- Safe design helps preclude the chambering and firing of lethal ammunition
- Work with the user's service weapon without adding extra weight
- Realistic weapon functioning in semi and fully-automatic modes
- Available for a variety of pistols, revolvers, rifles, shotguns and submachine guns



### The FX® Marking Cartridges are ideal for training:

- Reality-based, force-on-force interactive scenarios
- Force-on-target training; practically anywhere
- Weapon safety handling training
- Urban fighting (MOUT/FIBUA)
- Anti-terrorism
- Convoy protection tactics
- Compatible with laser-based training simulators
- Patrol exercises
- Close-quarter battle (CQB)
- Shoot/No shoot decisions
- Individual/Team situations
- Room/Building/Trench clearing
- Mission rehearsal

### FX® Scenario Instructor and Safety Certification Course:

- Highly qualified professional trainers
- Offered worldwide: check our website at [www.simunition.com](http://www.simunition.com) for more information on available courses



 **SIMUNITION**

SIMUNITION, Safety as The Standard™

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WITH 9 MM AND .38 CAL. FX® MARKING CARTRIDGES

COMPONENTS	9 x 19 mm FX®	.38 / .357 cal. FX®
Projectile mass	0.5 gram (7 grains)	0.65 gram (10 grains)
Projectile material	Plastic	Plastic
Cartridge case	Copper alloy	Copper alloy
Sabot	Plastic	Not applicable
Marking compound	Non-toxic, detergent-based, water-soluble	Non-toxic, detergent-based, water-soluble
Marking color	Red, blue, green, yellow, orange and white	Red and blue
Primer	Small pistol primer or TOXFREE® primer	Small pistol primer
Propellant	Single or double-base smokeless powder	None
BALLISTIC DATA	Pistol, SMG or Rifle kits	Shotgun or Revolver kits
Average muzzle velocity at 21°C (70°F)	110-150 m/s (360-490 fps); dependent weapon	90-130 m/s (300-425 fps)
Accuracy (indoor range) at 21°C (70°F)	9 cm (3.5 in.) at 7.6 m (25 ft.) extreme spread	9 cm (3.5 in.) at 7.6 m (25 ft.) extreme spread
Safety template	160 m (523 ft.)	160 m (523 ft.)
Penetration in 20% gelatine	None	None
Muzzle energy (at 3.5 m)	3.0-5.6 joules (2.2-4.1 foot-pounds)	2.6-5.5 joules (1.9-4.1 foot-pounds)
Trajectory match	Mean point of impact 15 cm (6 in.) lower than ball at 7.6 m (25 feet)	Mean point of impact 5 cm (2 in.) lower than ball at 7.6 m (25 feet)
TERMINAL EFFECT		
Lethality	Non-lethal bruises, welts or scrapes	Non-lethal bruises, welts or scrapes
USE		
General	For use with Simunition® conversion kit only	For use with Simunition® safety rings or conversion kit only
Operational temperature range	-8° to 40° C (18° to 104° F)	-8° to 40° C (18° to 104° F)
Mandatory safety equipment	Head, throat and groin protection	Head, throat and groin protection
Firing modes	Single shot for pistols; single shot, burst and full automatic for submachine guns	Single shot
Weapons	The ammunition will function (feed and cycle) in a wide variety of weapons for most popular law enforcement and military models. Please refer to <a href="http://www.simunition.com">www.simunition.com</a> for a detailed listing of all available models.	The ammunition will function in most revolvers chambered for .38 Special or .357 Magnum. 12 Gauge conversion kit will function in most pump action shotguns chambered for 2-3/4" and 3" shells.
STORAGE		
Recommended storage	Cool, dry environment, 25° C (77° F) max.	Cool, dry environment, 25° C (77° F) max.
Shelf life	Five years in original packaging	One year in original packaging
Warranty	One year	One year

#### Guidelines for use:

- Intended only for supervised training conducted in accordance with Simunition® safety training protocols by law enforcement, military and Simunition® approved commercial range programs (in selected markets)
- Use only under the direction of a qualified Simunition® training safety officer
- Use only in firearms which have been converted with a Simunition® conversion kit
- Clearly identify converted weapons with FX® blue tape on the trigger guard, grip and on the magazine
- Simunition® recommends a minimum 1-ft. (30 cm) stand-off distance when firing 9 mm and .38 cal. FX® Marking Cartridges at protected personnel
- Users must wear approved FX® protective gear (head, throat and groin protection). Full-body covering recommended
- Improper use can cause serious injury or damage
- General Dynamics assumes no responsibility for injuries, loss or damage resulting from misuse of this ammunition

Dimensions, weights and velocities are nominal. US Patent no. 5,677,505 and 5,492,063; also Patented or Patents Pending in numerous other countries.

**SIMUNITION, Safety as The Standard™**

**SIMUNITION**

[www.simunition.com](http://www.simunition.com)  
[www.gd-otscanada.com](http://www.gd-otscanada.com)

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