



HANWHA CORPORATION

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Phone : 82-2-729-1784, Fax : 82-2-729-1743 Website : exp.hanwha.co.kr

CHARGE, PROPELLING, 155MM : M203



Use :

The M203 is a Zone 8 S charge designed to supplement the standard M3, M4 , and M119 series charges and to provide extended range for the 155mm Howitzer M198.

Description:

The M203 Propelling Charge is a single increment, red bag charge, approximately 30-1/4 inches long. The charge contains approximately 26 pounds of the high energy, M30A1 propellant in a cloth bag. A red cloth igniter pad containing 1 ounce of black powder is sewn to the base of the charge. A central ignition core extends through the center of the charge for almost its entire length. This ignition core consists of a nitrocellulose paper tube containing a bag of black powder which is sewn to the base igniter. A liner consisting of a cloth side impregnated with titanium dioxide and wax, and a lead side lines the forward end of the charge. Four tie straps sewn to the base of the charge run the length of the charge and are tied to the forward end of the charge, A donut shaped flash reducer is inserted under the tie straps at the forward end of the



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charge. A cylindrical jacket is placed over the charge length and tightly laced. This lacing jacket serves to provide necessary rigidity and structural stability of the assembled charge, and serves to differentiate the 8S from the M119/M119A1 Zone 8 charge.

Functioning:

The flash from the black powder in percussion primer M82 ignites the igniter pad at the base of the charge. The burning igniter pad in turn ignites the black powder in the igniter core to spread ignition to the propelling charge. Rapidly expanding gases from the burning charge propel the projectile through the barrel of the weapon with enough velocity to reach the target, The flash reducer functions to reduce blast overpressure and flash at muzzle of the weapon.

Tabulated Data:

M203 Charge:

| | |
|-----------------------|---------------------------|
| Type | Red bag, separate loading |
| Weight | 26 lb (11.8 kg) |
| Length | 30-1/4 in. (76.84 cm) |
| Color | Red w/black Markings |
| Cannon used with..... | M199 (M198) System |

Propellant:

| | |
|-------------------|-----------------|
| M30A1 | 26 Lb (11.8 kg) |
| Primer | M82 (only) |
| Performance | Zone 8 S |

Temperature Limits:

Firing:

| | |
|-------------------|-----------------|
| Lower limit | -50°F (-46 °C) |
| Upper limit | +125°F (+52 °C) |

Storage:



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Lower limit -80°F (-62°C)(for periods not more than 3 days)

Upper limit +160°F (+71°C)(for periods not more that 4 hr/day)

Packing 1 propelling charge in metal container PA68

Propelling charge containers:

Weight 46 1b (21 kg)

Dimensions 38x8-13/32x8-13/32 in.(96.52x21.35x21.35 cm)

Cube 1.55 cu ft (0.04 cu m)

Shipping and Storage Data:

Quantity-distance class 1.3

Storage compatibility group C

DOT shipping class B

DOT designation PROPELLANT EXPLOSIVE SOLID CLASS B

DODAC 1320-D532

Assembly Dwg. No 9281897 (M203)

Container Dwg. No. 9293303 (M203)

Limitations:

The M203 propelling charge must not be stored or shipped in the vertical position due to damage that could be caused to the igniter core.