

20×102mm HE Technical Specification



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Applicable Standard: STANAG 3585, Domestic Foreign Trade Military Product Standard

Product Application: Applicable to M61, M197, M39 and other mainstream 20mm airborne automatic cannons, used for striking infantry targets, light equipment, field fortifications and low- speed aerial targets

1. General Technical Parameters

No.	Item	Technical Data
1.1	Calibre	20 mm
1.2	Cartridge Case Length	102 mm
1.3	Overall Length of Complete Round	≤ 168 mm

1.4	Total Weight of Complete Round	257 ± 3 g
1.5	Projectile Weight	101 ± 2 g
1.6	Cartridge Case Material	Brass (70/30 copper- zinc alloy)
1.7	Primer Type	Electric Primer (M103)

2. Interior & Exterior Ballistic Performance

No.	Item	Technical Data
2.1	Propellant Type	Double- base spherical propellant
2.2	Propellant Charge Mass	Approx. 38 g
2.3	Bursting Charge	Approx. 10.5 g, RDX- based composite high explosive
2.4	Muzzle Velocity (at 7.5 m from muzzle)	1030 ± 15 m/s
2.5	Maximum Chamber Pressure	≤ 4300 bar
2.6	Effective Firing Range	2500 – 3000 m
2.7	Maximum Firing Range	7000 m

3. Fuze & Safety Characteristics

No.	Item	Technical Data
3.1	Fuze Type	Point- detonating instantaneous mechanical fuze
3.2	Fuze Arming Distance	6 m – 10 m
3.3	Operating Temperature Range	-54 °C ~ +52 °C
3.4	Qualified Storage Life	10 years (under standard sealed storage conditions)

4. Hazard Classification & Shipping Data

UN Number	UN 0280
Proper Shipping Name	CARTRIDGES FOR CANNON, WITH BURSTING CHARGE
Hazard Class & Division	1.2C Explosive
Packing Group	I
Transport Regulation	Compliant with IMDG Code and military dangerous goods transportation requirements, no mixed loading with ordinary cargo

5. Export Packaging Specification

- **Unit Pack:** 100 rounds per sealed explosion-proof metal box, with integrated waterproof, moisture- proof and shockproof protection
- **External Box Dimension:** 530 mm × 360 mm × 190 mm
- **Single Box Gross Weight:** Approx. 41 kg
- **Pallet Configuration:** 30 metal boxes per standard pallet, total 3000 rounds/pallet
- **Marking Standard:** Each package is permanently marked with UN hazard label, 1.2C classification, product model, batch number, production date, gross/net weight and country of origin

6. Product Characteristics

This 20×102mm HE high-explosive round adopts a mature and reliable structural design, featuring stable ballistic consistency, high detonation reliability and excellent environmental adaptability. The projectile produces uniform fragmentation after detonation, with effective suppression and damage capability against soft and light armored targets. All technical indicators comply with NATO STANAG 3585 and foreign trade delivery standards, suitable for formal international trade delivery and end- user operational application.

7. Certification Statement

All products are manufactured in accordance with formal military and foreign trade specifications, with complete factory inspection records and qualified delivery certificates. The product quality, performance and packaging fully meet international trade export supervision and end- user acceptance requirements.