



20 mm OERLIKON



General

Single base one perforated cylindrical grain contains Nitrocellulose (NC), Diphenylamine (DPA) and additives. It is glazed with graphite. This propellant is used in 20mm cartridges for Oerlikon anti-aircraft gun.



TECHNICAL SPECIFICATIONS

Length	1.5 ± 1.8 mm
Hole diameter	0.1 - 0.2 mm
Diameter	1.2 - 1.5 mm
Diphenylamine (DPA)	1 - 2 %
Heat of explosion	Max. 900 cal/gr
Moisture & Volatile	≤ 1.5 %
Ash	≤ 0.4
Stability at 134.5 °C	≥ 40 min

BALLISTIC SPECIFICATIONS

Total charge	~ 58 gr
Average Velocity (HEI)	1050 ± 15 m/s
Std. dev. of velocity	≤ 8 m/s
Average Pressure at +21°C	≤ 4200 kg/cm ²
Pressure of single round at 21°C, +71°C and -33°C	≤ 4500 kg/cm ²

23×152 mm

General

Single base seven perforated propellant cylindrical grain contains Nitrocellulose (NC), Diphenylamine (DPA), Camphor and additives. It is glazed with graphite. This propellant is used in 23×152mm cartridges for 23mm automatic anti-aircraft gun (ZU 23 or equivalent).



TECHNICAL SPECIFICATIONS

Length	3.4 ± 0.4 mm
Hole diameter	0.10 – 0.25 mm
Internal Web thickness	0.5 ± 0.1 mm
External Web thickness	0.65 ± 0.15 mm
Diphenylamine (DPA)	1-2 %
Residue solvent	≥ 0.8 %
External moisture	≥ 1.2 %
Total volatile	≤ 3.5 %
Heat of explosion	Max. 920 cal/gr
Stability at 134.5 °C	≥ 60 min

BALLISTIC SPECIFICATIONS

Total charge	~ 77 gr
Average Velocity (HEI)	965 ± 10 m/s
Average Velocity (APT)	970 ± 10 m/s
Std. dev. of velocity	≤ 8 m/s
Average Pressure at +21°C	≤ 2925 kg/cm ²
Pressure of single round at 21°C+71°C and -33°C	≤ 3200 kg/cm ²