



#### General

Single base seven perforated cylindrical grain contains Nitrocellulose (NC), Diphenylamine (DPA) and additives. It is used in 7.62×39mm blank cartridges for Kalashnikov rifle.

TECHNICAL SPECIFICATIONS		
Length	1.5 ± 0.5 mm	
Diameter	$1.0 \pm 0.3 \text{ mm}$	
Hole diameter	0.1-0.2 mm	
Diphenylamine	1-2 %	
Graphite	≤ 0.4 %	
Ash	≤ 0.4 %	
Heat of explosion	≤ 1000 cal/gr	
Moisture & volatiles	1.2-1.6 %	
Stability at 134.5 °C	≥ 60 min	



#### **BALLISTIC SPECIFICATIONS**

Total charge	0.8 gr
Average Pressure	≤ 1200 bar

# 12.7×77 mm

### General

Single base one perforated propellant cylindrical grain contains Nitrocellulose (NC), Diphenylamine (DPA), Dinitrotoluene (DNT), Dibutyl Phthalate (DBP) and Potassium Sulfate. It is glazed with graphite. This propellant is used in 12.7  $\times$  77 cartridges for spotting rifle of 106mm guns.



## **TECHNICAL SPECIFICATIONS**

Length (mm)	2.25 ± 0.1 mm
Diameter (mm)	0.9 ± 0.1 mm
Hole diameter (mm)	0.19 ± 0.01 mm
Diphenylamine (DPA) (%)	1-2 %
Graphite (%)	≤ 0.2 %
Ash (%)	≤ 0.1 %
Moisture & volatiles (%)	≤ 1.6 %
Heat of explosion (cal/gr)	980 ± 5
Stability at 134.5 °C (min)	≥ 60

## **BALLISTIC SPECIFICATIONS**

Average Velocity (m/s)	538 ± 7 m/s
Std. dev. of velocity (m/s)	≤ 6 m/s
Average Pressure at +21°C (bar)	≤ 2500 bar
Pressure of single round at 21°C,	≤ 2800 bar
+71°C and -33°C (bar)	