



130 mm Reduced Charges



General

Single base seven perforated propellant cylindrical grain, category 9/7 contains Nitrocellulose (NC) and Diphenylamine (DPA). This propellant plus increments of one perforated tubular propellant type 12/1 – 72 is used as reduced charge for 130mm gun M-46 and type 59.



TECHNICAL SPECIFICATIONS

Type of propellant	9/7	12/1 – 72
Length (mm)	11.5 - 12.6	690 -720
Hole diameter (mm)	0.4 - 0.6	2.4 -2.8
Web thickness (mm)	0.95 -1.10	1.1 - 1.25
Total volatiles (%)	≤ 4.5	≤ 4.5
External moisture (%)	1.0 -1.8	1.0 -1.8
Residual solvent (%)	≥ 0.9	≥ 1.2
Stability at 134.5 °C (min)	≥ 40	≥ 40

BALLISTIC SPECIFICATIONS

Charge No.	No.2	No.3	No.4
Charge weight (approx.) for propellant type 9/7 (gr)	5700	4450	3200
Charge weight (approx.) for propellant type 12/1 – 72 (gr)	700	700	700
Average muzzle velocity (m/s)	700-710	615-625	520-530
Average max pressure at 15 °C (kg/cm ²)	≤ 2750	-	≥ 1100
Std. dev. of Velocity (m/s)	≤ 2.5	≤ 2.5	≤ 2.5