



RDX

KNOW-HOW ENGINEERING • PRODUCTION OF HIGH EXPLOSIVES • DELABORATION OF AMMUNITION



Prva iskra – namenska proizvodnja a.d. is producing all kinds of high explosives whose quality is in line with world standards in this area, GOST, MIL and STANAG, or according to customer's special requests. RDX is extremely strong and, when dry, it is very sensitive to impact, friction and static electricity. RDX has high chemical durability and thermal resistance. Due to high volatility pure RDX is used for detonators, amplifiers and transporters and, as a composite with TNT and wax, for casting and pressing of warheads, artillery munitions and missile assets. RDX is phlegmatized by various phlegmatizer types to increase resistance to impact and friction.

PRODUCT DESCRIPTION

- Chemical name: Hexahydro-1,3,5-trinitro-1,3,5-triazine
- Synonyms: Hexogen, RDX, Cyclonite, Cyclotrimethylenetrinitramine
- Chemical formula: C₃H₆N₆O₆
- CAS number: 121-82-4
- UN PSN: UN 0072 RDX, WETTED 1.1D



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As a military explosive, RDX can be used alone as a base charge for detonators or mixed with another explosive such as TNT to form cyclotols, which produce a bursting charge for aerial bombs, mines, and torpedoes. Common military uses of RDX have been as an ingredient in plastic bonded explosives. Civilian applications of RDX include use in pyrotechnics (cap-relay, cutting cords, detonators).

CHARACTERISTICS

Crystal Density, g/cm ³ :	1.816
Detonation Velocity, m/s:	8.750
Oxygen Balance, % (m/m):	-21.6
Heat of Explosion, kJ/kg:	5.723
Impact Sensitivity, N/m:	7,5
Friction Sensitivity, N:	120

TECHNICAL SPECIFICATION

	TYPE 1	TYPE 2
Color and appearance	White crystal, without mechanical impurities	
Melting point, °C, min	200	190
Insoluble in acetone, % (m/m), max	0,05	0,05
Content of Ash, % (m/m), max	0,03	0,03
Acidity as HNO ₃ , % (m/m), max	0,05	/
Acidity as CH ₃ COOH, % (m/m), max	/	0,02
Content of HMX (β modification), % (m/m)	0,0 - 5,0	4,0 - 17,0
Granulation	Large range	

COMPOSITIONS BASED ON RDX

Product	Ingredients	Content, % (m/m)
FH-5 (A-IX-1; ГЕКФОЛ-5,5)	RDX / Wax	94,5 / 5,5
FH-2,5	RDX / Wax	97,5 / 2,5
RDX/Wax/Graphite (OWC)	RDX / Wax / Graphite	94,5 / 4,5 / 1,0
RDX/Wax/Graphite (OWC) *for oil well perforating charges	RDX / Wax / Graphite	98,5 / 1,0 / 0,5
Composition B	RDX / TNT / Wax	59,5 / 39,5 / 1,0
Composition A-3 A-4	RDX / Wax	91 / 9 97 / 3
Composition A-5	RDX / Stearic Acid	98,5 / 1,5



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