

TarTarus™

GEL BINARY EXPLOSIVE



Overview

TarTarus™ is a professionally manufactured, two-component binary gel explosive developed by Crucial Defense Technologies. Engineered for precision, safety, and field adaptability, TarTarus™ delivers predictable energetic performance while dramatically reducing transportation and storage risk through its binary formulation.

The system remains non-explosive until mixed, allowing authorized operators to safely transport, store, and deploy energetic material in dynamic environments. Once mixed, TarTarus™ forms a stable, moldable gel capable of conforming to complex geometries and delivering consistent, repeatable results.

Designed for military, law enforcement, mining, and controlled demolition, TarTarus™ provides TNT-class performance with enhanced safety, logistical flexibility, and reduced regulatory burden.

Purpose Built



Law Enforcement

TarTarus™ provides a clean, controllable solution for breaching and tactical energetic applications. The gel format allows operators to shape charges precisely for doors, barriers, and structural obstacles—improving predictability, reducing overpressure, and enhancing mission safety.



Defense

With a TNT equivalence of 1.28 RE, TarTarus™ delivers consistent energetic output across a wide range of military applications. Its binary configuration allows for safer transport and field assembly while maintaining reliable detonation performance.



Mining

Pumpable, water-resistant, and stable, TarTarus™ is well-suited for borehole and confined-space applications. The gel structure ensures consistent energy transfer and improved placement compared to traditional bulk explosives.



Why Tartarus™

- ✓ Binary safety architecture
- ✓ Pound-for-pound more powerful than TNT
- ✓ Reduced regulatory burden
- ✓ Field-configurable geometry
- ✓ Stable, predictable detonation profile
- ✓ Optimized for modern operational logistics

Tartarus™ vs Composition 4 vs TNT



Category	Tartarus™ Binary Gel	Composition C-4	TNT
Type	Binary gel energetic	Single-component plastic explosive	Cast/granular explosive
Mixing Requirement	Mixed on-site (binary safety)	Ready-to-use	Ready-to-use
TNT Equivalency	1.28 RE	~1.34 RE	1.00 (baseline)
Detonation Velocity	~6,100–6,300 m/s	~8,050 m/s	~6,900
Density	1.15 g/cm ³	1.59 g/cm ³	1.65 g/cm ³
Detonation Pressure (GPa)	~18-23	~25.7	~19–21
Sensitivity (Unmixed)	Non-explosive	N/A	N/A
Sensitivity (Mixed)	Moderate	Low	Low
Transport Classification	DOT Class III (Unmixed)	Explosive – Class 1	Explosive – Class 1
Storage Requirements	No magazine required pre-mix	Explosive magazine required	Explosive magazine required
Form Factor	Gel – moldable & shapeable	Solid putty	Cast or granular solid
Field Adaptability	Excellent – conforms to geometry	Limited	Limited
Logistics Burden	Low	High	High
Safety Profile	Binary safety architecture	Traditional HE handling	Traditional HE handling
Primary Use Cases	Breaching, mining, precision charges, field-built systems	Military demolition	General-purpose reference explosive
Regulatory Burden	Reduced (unmixed)	High	High

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FFL

1-59-071-10-8B-59530

1-59-071-11-8B-59531

FEL

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