

Kinugoshi-ko

A relatively new innovation on an ancient concept of armor material. Silken Steel in Trade, also known as 'Hagane no Kinu' or Silk of Steel was first engineered in [YE 38](#) by [Ittô Hei Koyama](#) as her first foray into bio-engineering. The material itself is meant to be a means of supplying as a comfortable, inexpensive and damage resistant material for use in lightweight body armor, or in uniform development.

Like SynAraS (Synthetic Arachnid Silk), Kinugoshi-ko is also based off Spider Silk. But unlike SynAraS, Kinugoshi-ko has undergone a more indepth engineering process. By itself Spider Silk is a relatively strong material, SynAraS providing around four to five times the density to strength ratio of steel. Through the use of Protein Engineering, Kinugoshi-ko's capacity is upwards to seven times that of regular SynAraS. While bio-engineering has enhanced the basic protein chains, the application and melding of graphene through Protein Folding and molecular bonding into an intricate and stable structure. When tested, the enhanced material proved to be far more robust than Kevlar, regular SynAraS and Carbon Nanofiber when it came to kinetic penetration resistance. This put it on equal footing with Lorath manufactured [Stone Thread](#).

Initially thermostability proved an issue at first, the protein structure rupturing in the presence of high heat. Further engineering and the introduction of carbon nanoparticles increased resistance, but only to the point of being able to disperse the heat induced by energy weaponry enough to avoid second and third degree burns when used by itself.

Kinugoshi-ko is a breathable, comfortable visually appealing fabric much like its cousin silk from the silkworm. It is also easily dyed, layered, and displays moisture wicking properties. However due to its makeup, it cannot be utilized as a laminate. For reductions in physical trauma from failed kinetic weapons penetration, please use a trauma plate or padding.

- Producers: [Ketsurui Zaibatsu](#), Other Manufacturers
- Cost: Inexpensive

Properties Breakdown

- Very resistant to small-arms Kinetic Penetration
- Relatively Inexpensive to produce
- Provides some resistance to small-arms energy weapons

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