

Self-Regenerating Fabric Coating (SRFC)

Self-Regenerating Fabric Coating (SRFC) was thought up, and designed by [Jôtô Hei Koyama](#) in late [YE 41](#) for use with most standard [Yamataian Uniforms](#). At present, this coating is only produced by [Ketsurui Zaibatsu](#) and the [Yugumo Corporation](#).

Designer:	Jôtô Hei Koyama
Nomenclature:	SRFC
Manufacturer:	Ketsurui Zaibatsu , Yugumo Corporation
Fielded by:	Yamatai Star Empire

History

Koyama's second foray into bio-engineering, SRFC ¹⁾ was originally designed as a proof of concept. With the renewed onslaught of the [Kuvexian War](#) in mid to late [YE 41](#), its designer, [Jôtô Hei Koyama](#) decided to push the concept forward into an actual substance for use in several areas relating to fabrics and personal-scale protective clothing or vests.

Function and Design

SRFC is designed and built around specially engineered protein chains inspired by the regenerative capabilities of certain cephalopods. The substance is primarily for use in uniform and protective gear. SRFC, by its regenerative capabilities, can heal synthetic and organically derived fabrics such as cotton, silk, and space-age polymer and other synthetic materials. This is achieved by coating any given material in the substance. It remains in a state of dormancy until punctured, cut or ripped.

Should damage occur, the application of water²⁾, pressure and heat with activating the protein chains. Holding the damaged fabric together will form a seal as the proteins are stuck together and reform the given material to a state of use. This can take anywhere from seconds to minutes depending on the damage, environment and what liquid substance is used. Simple water or Hemosynthetic blood work best ³⁾, repairing damage within close to a minute under less than ideal conditions. Saliva and sweat take longer due to impurities, salts, electrolytic compounds, and white blood cells as well as antimicrobial which may hamper regeneration. In the end, such substances will do in a pinch should Hemosynth or water cannot be used.

From a logistical standpoint, SRFC is cheap to produce, coat and use in the application and repair of fabrics. Militarily, SRFC can be applied to uniforms to cut down on the need for replacements by freeing up production capabilities for use elsewhere and save on costs. It can also be applied to defensive gear such as protective vests giving the user much more survivability should their gear be compromised. All one would need to do is hunker down, hold the damaged pieces together and apply an aforementioned liquid substance and wait for it to heal. SRFC can be found in typical Yamataian care kits as a simple bottle or small aerosol spray.

Once the SRFC has been applied and accompanying liquid medium transferred to the coating it forms into a toughened protein-based 'patch' akin to a translucent skin along the damaged fabric's edges. After application, when applied to organic-based fabrics it effectively acts as a regenerative medium mending the damage seamlessly. Should it be applied to synthetics the same effect is had yet the 'patch' does not seamlessly absorb and instead the damaged material shows through for a period of time until the protein strands reform the damaged section. However, upon reformation, it is not a synthetic material but a protein-based substitute akin to a [toughened synthetic silk](#). The 'patch' remains for some time afterward before gradually breaking down leaving the material now repaired.

After being regenerated, fabrics act much the same as they had prior to being damaged including its coloration, the strands having effectively 'healed' and reformed to some approximation prior to the damage. Thanks to this, it suffers no lasting effects in the presence of rain, temperature changes and other elementally derived acts of nature that the fabric would not suffer on its own. When used upon protective clothing such as ballistic vests it provides nearly the same protection as the synthetic fabric.

Should the vest be carrying protective plates it can hold them effectively in the same position as before with no need to worry over possible ripping and tearing.

Medically, SRFC has some capability in the closure and temporary sealing of wounds when in the presence of hemosynthetic blood. Meaning it can protect the injury until healed, or medical attention can be found. It would be best to equate it to a form of liquid bandage/stitching in this regard. It, however, is not found in medical kits but may be used on the fly should one have a liquid applicator bottle or spray bottle handy.

Appearance

Appearance-wise, SRFC liquid is a semi-opaque slightly viscous substance. When applied to fabrics, it will gradually turn transparent once it becomes less active and enters dormancy. Once activated, the appearance of the SRFC will not change from a transparent coating until mending is complete in which case it takes on the coloration of the damaged area of the fabric. It will, however, feel a little thick in the presence of the needed liquid for its regenerative abilities.

Availability

SRFC is at present only produced within the [Yamatai Star Empire](#). Its production has not yet reached a mass-production state as of late [YE 41](#). It is however available in limited batches for testing and application until properly approved for mass use.

- Recommended Retail Prices
 - SRFC: 25 [KS](#) for a eight fluid ounce bottle.
 - SRFC: 28 [KS](#) for a ten fluid ounce aerosol spray can.

OOO Notes

[Soresu](#) created this article on 2019/12/15 21:35.

Approved by Charmaylarg using the checklist on 1/5/2020 [here](#)

1)

Self-Regenerating Fabric Coating

2)

Or saliva, sweat or even Hemosynth

3)

Hemo synth boosting the regenerative ability by 25-35%

From:

<https://wiki.stararmy.com/> - **STAR ARMY**

Permanent link:

<https://wiki.stararmy.com/doku.php?id=materials:srfc>

Last update: **2023/12/20 18:20**

