

Aegium

Aegium is a highly complex material, designed by [USO](#) in [YE 39](#) to provide multiple forms of protection in a single layer of armour. Due to its high-tech nature, it is very difficult and expensive to produce and repair and is consequently uncommon on capital ships.

More about Aegium

[Jay Nagato](#) came up with the idea for Aegium during his journey to [Planet Osman](#) as part of his plan to market designs to USO. As far as availability, the full details on how to 'forge' Aegium remain classified. Even though, theoretically, it could be *attempted* by anyone with the proper equipment, the end product would likely be of noticeably lower quality.

Composition

Aegium has two main components, the alloy and the nanotubes. The alloy is [Inconel 625](#) - a nickel-based superalloy known for its heat and chemical resistance. The nanotubes are [tungsten carbide](#), and sometimes silver nanotubes are added to enable the projection of a light [EM scattering](#) field.

Production

Aegium is forged in large plates by first setting a few millimeters of alloy on the bottom of the mould, then weaving the nanotubes into the alloy as it cools. The process is then repeated, often hundreds of times, layer over layer until the required thickness is achieved. Later, once all the plates have been forged, the ends of the nanotubes are carefully welded together and more alloy is set between the plates to produce a one-piece hull with a continuous mesh of nanotubes. Of course, there are errors to be made at just about every point in the production process. So much so, in fact, that 1/3 of plates attempted and 5% of hull fusings are failed. Although it can be forged by anyone with the right materials and equipment, the aforementioned failure rates are impossible to maintain without experienced personnel.

Properties

Pros

- Highly resistant to heat.
- High tensile and impact strength.
- Acid and corrosion resistant.
- Can produce a light EM field if forged as such.

Cons

- Extremely difficult to repair.
- Not overly strong against any one damage type.

OOC Notes

[Air Admiral](#) created this article on 2017/04/15 23:29.

From:

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

