

EM-G1 Emrys Dusk Suit

The Dusk 1a is the first EVA suit designed as part of the Dusk project of [Emrys Industries](#). It uses a polymer body suit to protect against the rigors of EV activity, including managing heat and cold extremes, and resisting the radiation of space. The polymer covering the inflexible parts of the body are reasonably flexible, allowing for some movement, but are not as flexible as the joints which barely restrict movement. The entire suit clings to the body tight, for better maneuverability. It became available in [YE 28](#).



History and Background

As one of [Seru Emrys's](#) many, many ideas, the Dusk project was set up, a project for the creation and improvement upon environmental and EVA suits. The 1a is the first creation of this project, made for high maneuverability, especially in space.

Later evolutions of the Dusk suit became the [Star Army Environmental Suit, Type 28 \(AMES\)](#) and the [EM-G7 Emrys Environ suit](#).

Specifications

Production: Will be in all Emrys Industries ships in the future, until a newer model is brought out, production capabilities will be increased to handle other organizations interest.

- Manufacturer: [Emrys Industries](#)
- Type: EVA/ Environmental suit
- Nomenclature: EM-G1-1a
- Designer: Emrys Industries Research and Development teams

Organizations Using This Suit:

- [Emrys Industries](#)
- [Geshrinari Shipyards](#)
- [Star Army of Yamatai](#) - no longer
- Any other interested parties

Appearance: The Dusk 1a looks to be a black body suit that covers the entire body, and a smooth helmet.

Length: Comes in a variety of sizes, around an inch larger than the wearer.

Width: Comes in a variety of sizes, around an inch larger than the wearer.

Height: Comes in a variety of sizes, around two inches larger than the wearer.

Pricing

- 350 **KS**

Performance Statistics

Speed (STL): The Dusk 1a does not have its own propulsion, and relies on the wearers own ability to walk and navigate and use the grappling threads and magnetic pads to get around.

Range (Distance): The Dusk 1a is not made to travel far from the ship it was on. It will not find it easy to get back without assistance.

Range (Support): The Dusk 1a is highly efficient at recycling oxygen. Thus a wearer of the Dusk can actually survive three days simply in the suit (this is using a human as the base wearer).

Lifespan: The Dusk 1a is resilient, but being exposed to extremes tends to erode at it slowly, and the grappling threads need to be replaced. It is not recommended that a single suit should be used for more than six months, if used frequently.

Refit Cycle: The Dusk project is ongoing, new suits will be brought out, as will variations of the 1a.

Inside the Dusk 1a

The inside of the Dusk is like a thick rubber tube that presses in on the body. Although it feels tight, movement is unimpeded, a simple movement of the limb will have the same effect on the suit, due to the nature of the polymer. The helmet has simple sensors in it, and a transparent surface to see through, which a screen can be superimposed upon. There is also a microphone in the form of a small tube that goes next to the mouth, which the wearer can use to communicate using radio or laser. There is a lamp built into the helmet, powered by the back pod with on/off switch. There is a strip of fabric/hook-and-pile where a soldier can pin his or her rank. On the outside there is one belt around the waist, containing the grappling thread device, the oxygen canisters, and several utility pouches, that can contain all variety of items. There are another two belts, one on each upper thigh, that contain other utility pouches. On the back of the suit there is a pod that contains the oxygen and waste recycling systems, and the sub-space radio.

Suit Systems

Skin

The 'skin' of the suit, is made of a specialized polymer, highly resistant to both heat, cold, and cosmic radiation. Inside the suit the wearer is safe from the extremes of space. It also is wired with movement sensors on the inside, which can sense electronic currents in the nerves running through the body, and replicate the same movements in the suit, using electric currents to cause parts of the polymer to retract and some to un-retract. This makes the suit like a second skin. The Skin is impact resistant, but not greatly so, for more piercing resistant. It is very hard to pierce the polymer, it bends but does not break. It is not made for combat situations, and will not fare well against energy weapons, even though it can survive great heat. Over the polymer is a heavily acid resistant layer of polymer, which also covers all the additional components.

Grappling thread

The Dusk 1a has a device on its belt which fires a specialized thread polymer, which sticks to surfaces, and is flexible, even in the freezing vacuum of space, allowing for the suit to get around, and not be left floating unable to get back to the ship. The device has enough polymer in it to fire around a hundred of these threads, each one extending fifty meters, although a longer thread can be made by expending more polymer. Although it can not be retracted, it can be used to pull ones self along, and a secondary function on the device cuts the thread off. The thread is strong enough to hold the wearer and suit easily, and some additional weight. The grappling action is activated by one button on the device, the cut off by another.

Air Cans

On each side of the suits belt there is a small can of highly compressed air, that can be used to get around.

Magnetic pads

On the palms and the feet of the suit are magnetic pads that can be used to climb magnetic surfaces. These were going to be used as the sold way of getting around, but then someone brought up that some of the super materials aren't magnetic, so the grappling thread was developed.

Environmental Systems

The environmental systems of the Dusk 1a, stem from its high resilience in extreme situations, and its ability to recycle air well. There are tubes for the wearer to urinate into, connected to a micro refinery, which uses specialized bacterium and micro-organisms to filter it, and return the water by way of other tubes, that the wearer can drink from. The micro refinery is in the back module.

Air Recycling System

The air recycling system of the Dusk 1a is very efficient inside the back module, and uses a combination of specialized catalysts and organics to split carbon dioxide into oxygen again. Water vapor is also condensed and can be delivered back to the wearer. There are also additional capsules of oxygen in the legs, allowing for longer breathing time, and a back up if the back module is damaged.

Sensor and Computer Systems

The Dusk 1a has a functional set of sensors and a computer.

Central Computer System

On the Dusk 1a, the computers main task is to monitor the sensors that navigate the electric currents through the polymer. The computer has a location system and heads-up display in the helmet displaying the estimated amount of life support time remaining, the location of the home base, or other chosen way-point, and markers for degrees.

Sensors

The sensors of the Dusk 1a are primarily ones on the inside of the suit that monitor the electric currents through the body, judging the brains commands to move the limbs. However it also has cameras on the outside of the helmet that can see into the infrared spectrum.

Wristwatch

This digital display on the left arm has a time display (with button-activated backlight) and environmental tester, capable of measuring oxygen, chemical agents and radiation type and levels.

Communication

The Dusk 1a can communicate using radio and laser. In the backpod there is a small subspace radio system tied to the helmet with a range of 500,000 miles, also capable of being used for an emergency distress beacon.

Weapons

The Polymer also does increase the wearer's strength, and if worn planet side, it can be used for its

increased strength and durability.

OOC Notes

Originally submitted on Jul 22, 2005 -

<https://starmy.com/roleplay-forum/index.php?threads/dusk-1a-eva-suit.11958/>

Products & Items Database	
Product Categories	survival
Product Name	EM-G1 Emrys Dusk Suit
Nomenclature	EM-G1-1a
Manufacturer	Emrys Industries
Year Released	YE 28
Price (KS)	350.00 KS

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