

Low Explosive Webbed Delaminating (LEWD) armor

LEWD armor is a [Department Of Advanced Research And Development \(D.O.A.R.A.D.\)](#) and [Department Of Engineering](#) joint project, a self-repairing, ablative reactive plate armor light enough for use on armored personnel carrier vehicles, but effective against most energy and kinetic armor penetrating rounds.

Designer:	Department Of Advanced Research And Development (D.O.A.R.A.D.)
Nomenclature:	S6-RAA-1a
Manufacturer:	Department Of Engineering , Department Of Advanced Research And Development (D.O.A.R.A.D.)
Fielded by:	NDC Ground Forces "Duskerian Legion" ¹⁾

Function and Design

The system is deceptively simple, being hundreds of graphene plastic armor plates in the single layer thickness range, interspersed with lower quality [graphene](#) slurry with a suspending liquid gas at room temperature, often nitrogen or carbon dioxide.

When a round penetrates the first few layers, the gas instantly vaporizes through the hole, applying massive counterforce to the offending projectile, accompanied by a massive temperature drop, due to Gay-Lussac's Law ²⁾. This causes remaining gas trapped in the [graphene](#) slurry to freeze, and expand slowly enough to force the ionic bonds to form a [graphene](#) crystal that will seal the resultant puncture. This will allow the vehicle's own systems to compress more gasses to replenish a buffer tank located in the hull used specifically to replenish the supply of liquid gas for the armor.

However, the armor will be required to resupply, and pieces will eventually have to be replaced as the armor degrades. Due to the [graphene](#) slurry being nonreplicating, and the changing structure of the armor, it will degrade over the course of its service life and accumulated damages, requiring replacement in garrison.

- Damage Rating: One 1ft x 1ft cell is rated at Tier 6³⁾, but will collectively go up to match that of the vehicle it's installed on.

Appearance

The armor itself is a very hexagonal design pattern against a support plate where the hydrogen distribution channels to each cell of the armor system. This is usually layered over the vehicle's base armor, or created into thick shields mounted on the vehicle. Additionally there is a tank system for additional hydrogen stored that has to be installed where space is available in order to replenish the armor after each hit.

Availability

This armor is not readily sold, and must be purchased via visit of a factory which is licensed to construct it. If bought separately from a vehicle purchase, price is negotiable.

Warnings

Note: While the armor is a multi-use ablative armor, it is not undefeatable. Do not attempt to use as a true self-replenishing armor.

Caution!: Impacts cause extreme low temperature and high-pressure steam flashes. Do not approach armor during or after an impact, as damage to equipment and injury to personnel may occur.

WARNING!: Not to be used against energy weapons. Overflash, damage to equipment, and injury to personnel may occur.

WARNING!: Prolonged exposure to thermal weaponry may cause a mass ablation event, neutralizing the armor with explosive force. Damage to equipment and injury to personnel will occur.

OOO Notes

[Madi Harper](#) created this article on 2018/12/11 19:42.

Approved by charmaylarg [here](#) on 9/29/19

1)

for use on , [Hydra Variable Tank](#), [BW-RTTS "Bolt"](#), [The BW-HBT "Hades"](#) (WIP

2)

Stating, in essence, that without factoring for time, change in pressure is directly proportional to change in absolute temperature. See [Gay-Lussac's law](#). This concept is most commonly applied by diesel engines, fire pistons, and pasteur's process.

3)

as this is the lowest tier of vehicle it can be installed on.

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Last update: **2023/12/21 04:23**

