

This is a write-up before the Ablative armor is finally finished. It is recommended that if anyone has any questions or has any input, or ideas now is the time to do it (please be specific if possible, thanks). I would like to thank the following people for their input: William Colley, Bryan Jecko, and Joshua Fisher, I would also like to thank the others who have helped in giving their input.

Ablative Armor Write-up

Ablative armor is a new material that is designed to protect a ship if in the advent the shields are down. It is a protective skin that is designed to vaporize under weapons fire, thereby dissipating energy and protecting the ships systems inside. It has been in development for many years. There are various reasons it has not been in wide production. It is due to the materials availability, instabilities, Phaser and Torpedoes resistance and a long fabrication time. It works when the shields are down and the material is hit, it then reacts to the incoming fire. When it is hit it gets vaporized and in the process it lessens the blow to the ship on the inside. It is similar to the Reactive Armor in the late 20th Century, which they use on tanks. Here recently there is another form of ablative armor called Regenerative Ablative Armor, similar to the Regenerative shields. The shields and the Regenerative Ablative Armor can both be raised at the same time on the same turn. Below are the charts for the Ablative Armor and the Regenerative Ablative Armor.

Ablative Armor				
Type	Class Range	Mass	Damage Ratio	# of Hits
AA-1	I - V	75/1	2/1	3
AA-2	VI - X	80/1	4/1	5
AA-3	XI - XV	85/1	6/1	7
AA-4	XVI - XX	90/1	8/1	9

Regenerative Ablative Armor					
Type	Class Range	Mass	Damage Ratio	# of Hits	PTA
RA-1	I - V	70/1	4/1	3	1
RA-2	VI - X	75/1	6/1	5	4
RA-3	XI - XV	80/1	8/1	7	8
RA-4	XVI - XX	85/1	10/1	9	10

Type

The first column lists the different levels of ablative armor. AA is referring to Ablative Armor. RA refers to the Regenerative Ablative Armor.

Class Range

This is the range of the ship classes that can have the ablative armor.

Mass

The mass is in a ratio; this is to show how much the ablative armor will weigh on the ship. The ratio uses the SS Mass. For an example if the SS mass of a ship is 42,000 mt and the ship is a class XI. Now if we wanted to use the regular ablative armor we find the AA-2 will work for the ship. The AA-1 will not work because our ship does not fall within the Class Range. We find the mass ratio to be 80/1. This means for every 80 tons of SS mass there is 1 ton for ablative armor. We find that the ablative armor will weight 525 mt ($42,000 \text{ SS mass} / 80 \text{ mass ratio} = 525 \text{ mt}$ of the ablative armor). Then we add it after we add the SS mass and the component mass. If the component mass is 119,008mt and the SS mass is 42,000 mt, then the total is 161,008 mt. Then you add the ablative armor and get 161,533 mt ($119,008 \text{ component mass} + 42,000 \text{ SS mass} + 525 \text{ mass of the ablative armor} = 161,533 \text{ mt total}$).

Damage Ratio

Since the ablative armor can not protect the vessel fully some of the damage is transferred to the ship itself. This fraction tells how much protection the ablative armor can do while in combat. In this case the higher the fraction the more protection the ablative armor can do for the ship. If we take a look at the AA-3 we see the damage ratio is 6/1, this means for every 6 points of damage there is 1 point of damage done on the SS.

Example:

Jim is in a Klingon D-10. Bryan is in a Remora. It is during the firing phase that the armor will come into play. Jim is going to fire a KD-13 on the Remora vessel. The Remora vessel is a Class VII. The Remora

vessel has standard ablative armor. This means the damage ratio will be 6/1. The KD-13 does 5 points of damage. Jim is able to hit Bryan's ship. Bryan informs Jim his Remora has ablative armor. As the beam hits, Bryan calculates the beam will do 0.833 points of damage. Round all fractions up to the nearest whole number (6 damage ratio number / 5 points of damage done by the KD-13 = 0.833 points of damage, rounded up to 1 point of damage done to the SS of the ship). So the KD-13 only does 1 point of damage to the SS of the Remora ship. Bryan then makes the appropriate calculations on his record sheet.

of Hits

This tells us how many times the ablative armor can be used before it is all gone. This is per hex side. For instance if we look at the AA-3 it can be used 7 times before the ablative armor is all gone. After 7 times the armor is gone and has to be replaced at a starbase facility. With the armor gone you treat the vessel as if it did not have the ablative armor.

For the Regenerative Ablative Armor, it is treated the same with this exception; once the armor is gone it begins to regenerate. The entire Regenerative Ablative Armor has to be down on all sides for it to start to regenerate. It will take one full turn before the armor is fully regenerated and the armor can come back up at full strength.

Example:

Jim is in a Wilkerson destroyer. It is a Class IX. Bryan is in a Romulan Whitewind. The Wilkerson destroyer has the Regenerative Ablative Armor. The armor can withstand 5 hits before it is all gone. Bryan has already shot at the Wilkerson 4 times. As the usual damage ratio is applied Jim knows he does not have any more regenerative ablative armor on that side of the ship. Jim knows that was the last of his Regenerative Ablative Armor. He then makes the appropriate calculations on his record sheet. Jim knows his armor will be down for the rest of this turn and the next turn. Jim knows the following turn the armor will be up at full strength.

PTA

For the Regenerative Ablative Armor it is treated the same way as Ablative Armor with the exception that the armor has to be powered up. On the chart you will see the PTA, this refers to the Power To Arm the armor. To power the armor it must be done before the firing phase of each turn.