DIY Repair procedure CES filter

If a CES filters unfortunately gets damaged, resulting in a relatively small hole/puncture then there is an option to try and repair the 'defect' yourselves. However the below suggested procedure is at YOUR OWN RISK and we don't take ANY responsibility for the final results. Still in most cases we would suggest you give it a try as we assume you are reading this page having had the bad fortune of a filter that has become damaged. So not much to lose, right ?

Assuming we are talking about a small 'defect' that is less than 1 mm in diameter, the repair solution is in essence to apply a small droplet of silicone onto the 'defect'.

Warning: the appropriate type of silicone that can be successfully used is limited and we recommend to use the semi-flowable "Momentive TSE 397C Silicone Adhesive Sealant". This is a single-component RTV that cures quickly by reacting with atmospheric moisture to form a soft silicone rubber sealant and is non-corrosive to metallic substrates.

Make sure you do not use any of the other types available such as '392', '395', etc. It's all about the right viscosity and the 'TSE397' is only one that works in our experience.

Procedure:

1) Make sure the filter is cleaned. We recommend to clean the filter in an Ultrasonic cleaning device, similar as recommended in our standard synchronization protocol. After cleaning make sure to rinse the filter with 'demi-water' and let it dry in a dust free environment such as a flow-hood.
2) Take a clean (disposable) petri-dish and apply a drop of fresh 'TSE397 silicone' and quickly proceed to the next point as the silicone will immediately start to cure being exposed to air/humidity.
3) Take a toothpick or something similar and 'pick-up' from the drop of silicone on your petri-dish a small amount of silicone. Make sure it is not 'dripping', however enough to form a small 'semi droplet' at the end of your 'toothpick'.
4) Carefully apply the 'semi droplet' at the end of your toothpick to the defective spot on your filter. Make sure you apply the silicone on the top of the filter as you want to have a smooth surface in the end.
5) Let the silicone sit for a minute (not much longer) and check that the silicone is visible from the bottom side of the filter. We recommend to leave any silicone that has formed on the bottom side, however excess silicone may be carefully removed before curing, hence within the first 2-3 minutes of this procedure. Else just leave it.
6) A single application is typically sufficient for a small hole, however if the 'defect' has not been closed/covered sufficiently then after approximately 6 - 8 minutes repeat step 2 to 5 if needed. Each time with a Fresh (!) drop of silicone and a new/clean 'toothpick' (!).
7) Let the 'silicone patch' cure for approximately 24 hours.
8) Last but not least make sure it never happens again ☺

PS: we strongly recommend that you rehearsal the above procedure (dry-run) before applying your newly acquired skills to the 'real thing'.