

HV noise filter and ProtoDUNE-SP updates

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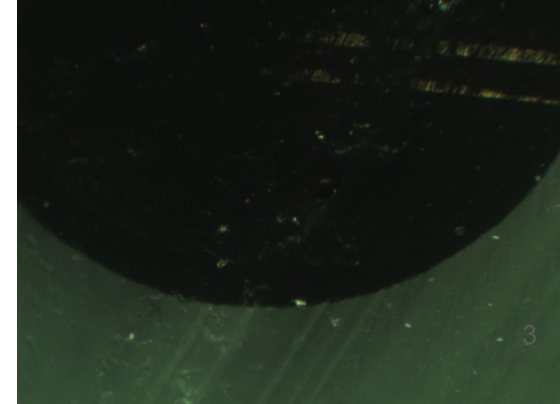
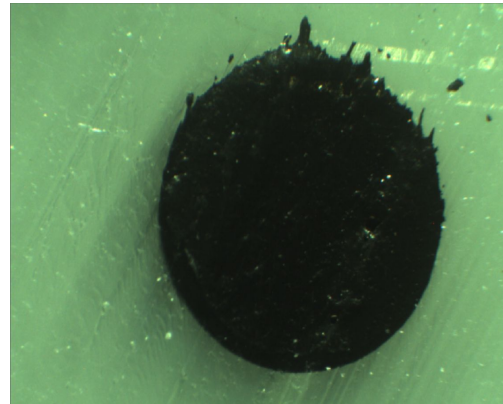
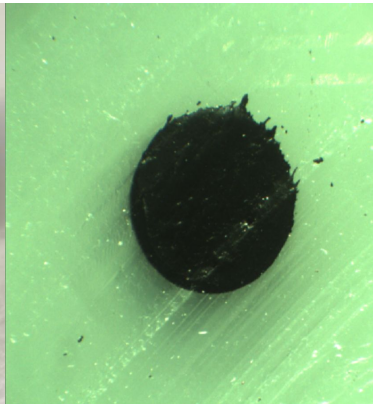
Noise filter with dielectric polymer

- re-used the mechanical structure of oil based filters
- Filled them with 28kV/mm dielectric strength polymer
- We are going to replace the current filter and test the new one



HV cable with resistive inner connector

- DS-2343 from Sarah
 - R measured = 26.7 kOhm/m
 - C calculated = 73 pF/m
- Resistance of cable as R in the filter
- Cryo-fitted and leak checked for the inner conductor
 - Quite good, at the level of e-10!!



ProtoDUNE-SP HV tests in 2020

- As a last test in ProtoDUNE-SP, we would like to increase HV on CPA and try to run with higher fields
- 300kV PS was refurbished
- Need new noise filter
 - We have resistors and components. Need to put them together
- Need to modify the HV cable

