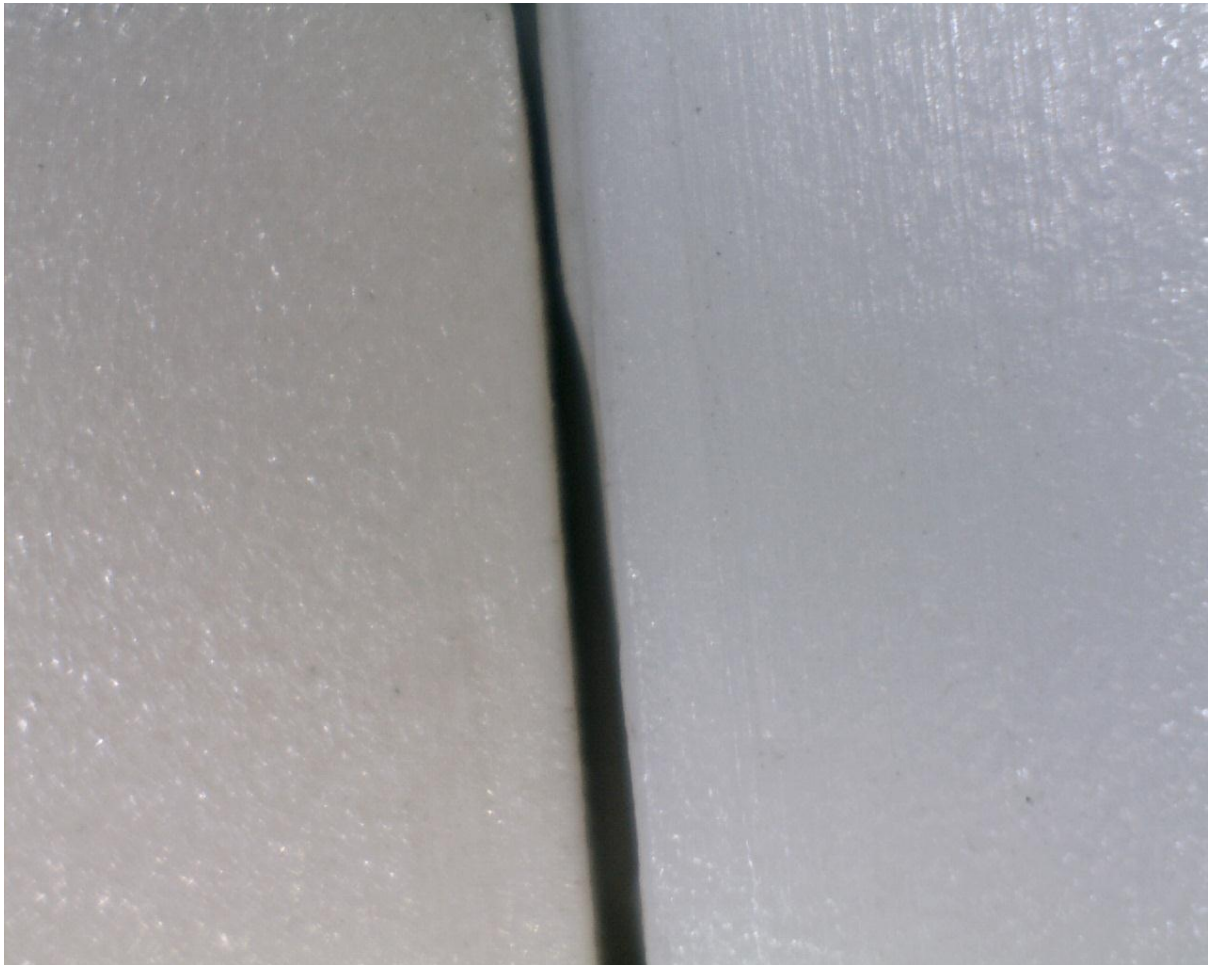


New CPE 3 Pole HV connector

Inspected on 13 Jan 2012

The moulding geometry seems identical to all previous versions. However the colour is of a more fawn hue with less reflection in the visible light range.



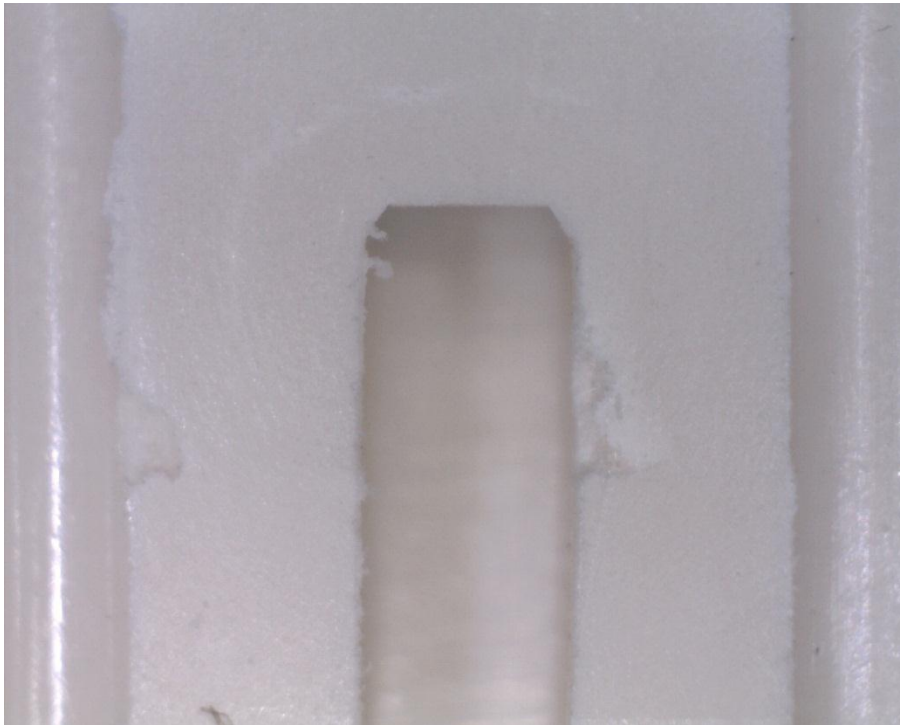
The void size is clearly smaller than all other versions $\sim 0.2\text{mm}$.



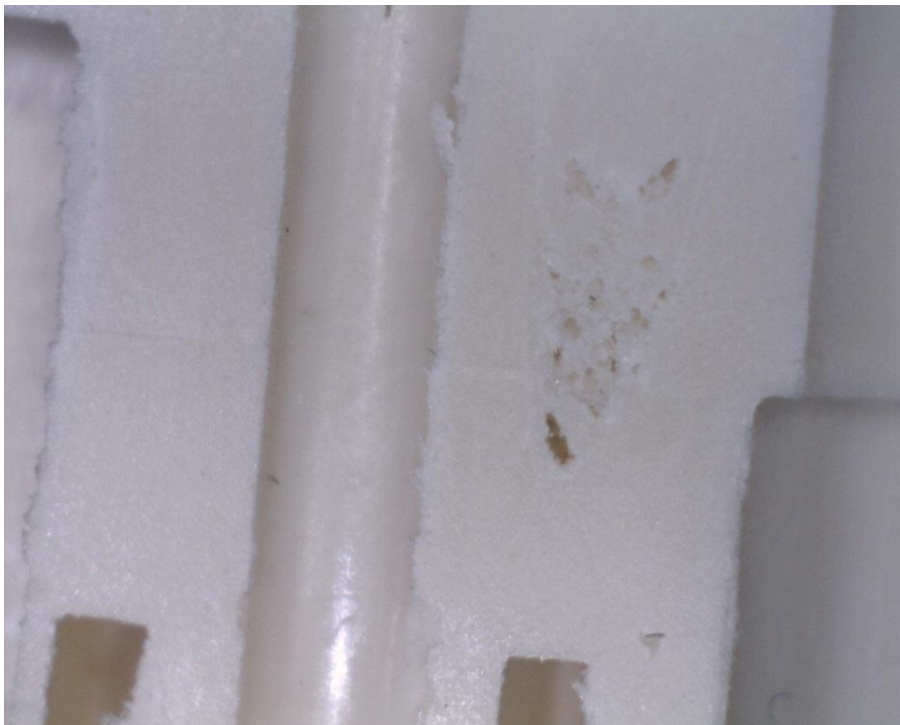
The older versions $>1\text{mm}$;



However there are other defects on the insides of the mould;



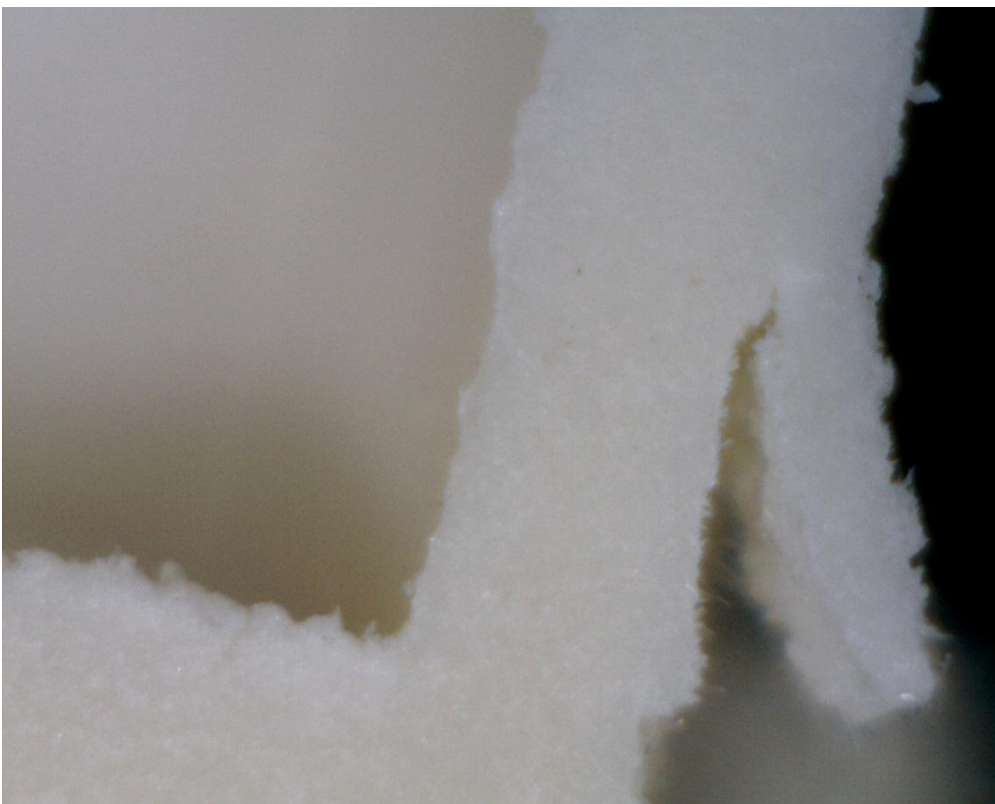
Porosity over 0.9mm in length.



Closer inspection reveals rough surfaces ?;



And brittle fracture growth.



The pieces are non-pliable, unlike the older versions that are very elastic.



Brittle fracture is evident with low strength.



In comparison to the older versions;



It would appear that the new version has been heat treated in a manner to form excess crystal growth, in an attempt to make the material more fluid for better mould filling as opposed to the older versions that remain more amorphous. The higher crystalline content may decrease electrical conductivity while reducing breakdown voltage.

I would not recommend this material/heat treatment for the 3 pole HV connector.

Ian Crotty 13 Jan 2013