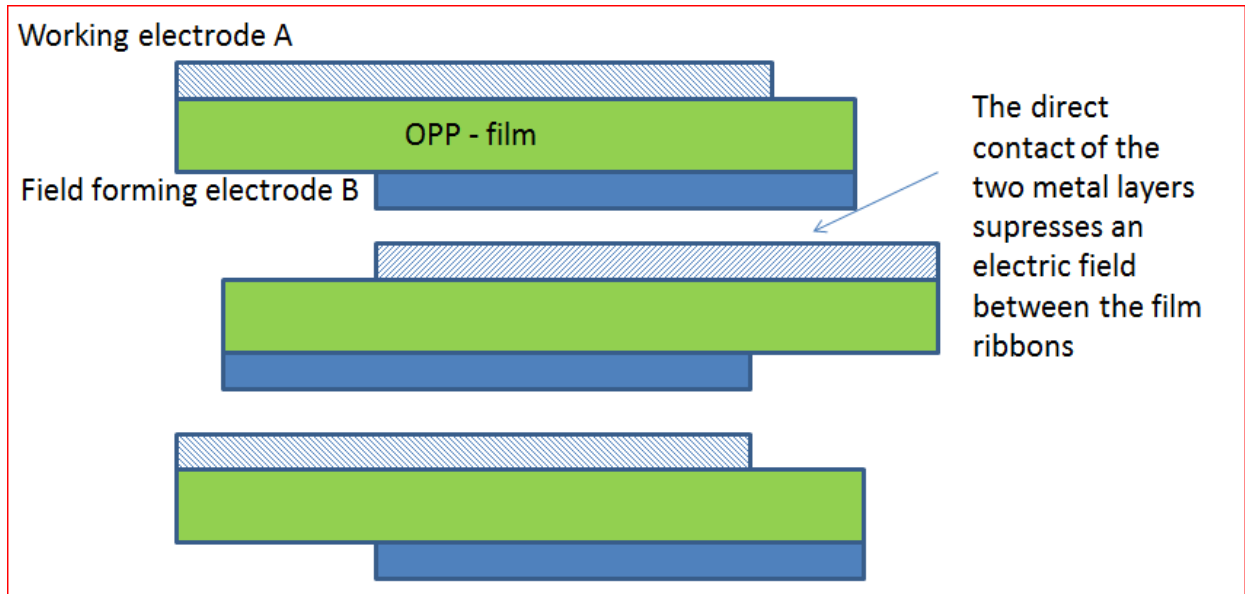


Proceedings on both sides Zn-coating on OPP for AC-Application

Author: Dr. Bernhard Luzietti, www.steinerfilm.de, October 2018

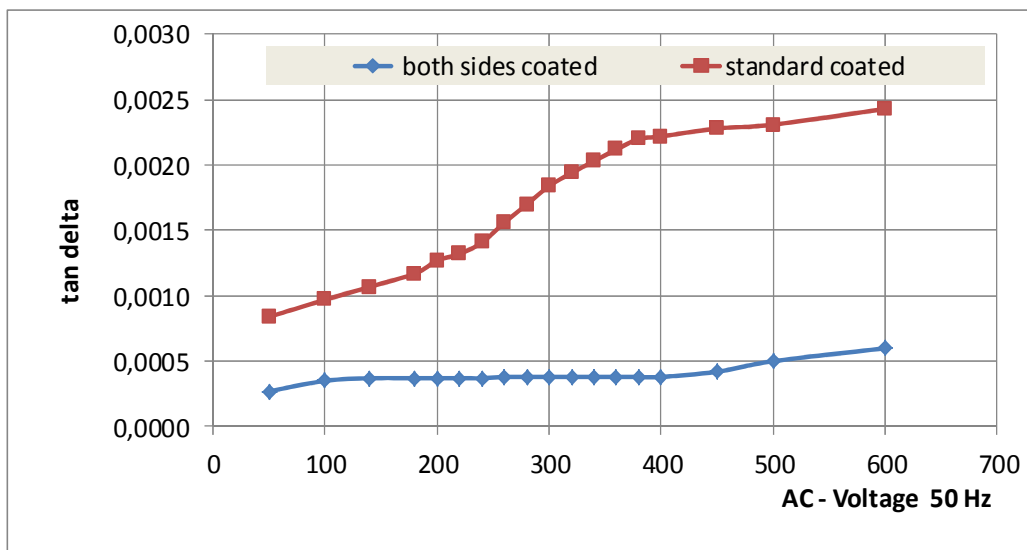
Although polypropylene is the material of choice for AC applications the established film capacitor designs face a physical limitation due to the corona discharge effect. The effect becomes already visible at the standard voltage of 230VAC/50 Hz and increases rapidly towards higher voltages.

The depicted arrangement of both sides coated film is known as a solution, but is not in access due to various technical restrictions of making and processing such a material.



Drawing 1: Arrangement of both sides coated film in a capacitor

The upper curve in the diagram tan delta versus voltage illustrates the effect of the corona discharge in a capacitor.



Drawing 2: Dissipation factor versus voltage.

The bottom curve demonstrates the superior performance of the newly designed material.