

## Learning Materials of Atmospheric Pressure Plasma Process: Turning Hydrophilic Surface to Hydrophobic

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**Abstract :** This paper investigates the use of atmospheric pressure plasma for improving the surface hydrophobicity of polyurethane synthetic leather with tetramethylsilane (TMS). The atmospheric pressure plasma treatment with TMS is a single-step process to enhance the hydrophobicity of polyurethane synthetic leather. The hydrophobicity of the treated surface was examined by contact angle measurement. The physical and chemical surface changes were evaluated by scanning electron microscopy (SEM) and infrared spectroscopy (FTIR). The purpose of this paper is to provide learning materials for understanding how to use atmospheric pressure plasma in the textile finishing process to transform a hydrophilic surface to hydrophobic.

**Keywords :** Learning materials, atmospheric pressure plasma treatment, hydrophobic, hydrophilic, surface

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