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PRESSURE SENSITIVE ADHESIVES, SOFT SKIN ADHESIVES AND RELEASE COATINGS: THE UNIQUE PROPERTIES OF SILICONES MAKE ALL THE DIFFERENCE

Silicones have a long history of successful use in many industries and applications where some materials are intended to stick or bond together under suitable conditions. In the multiple markets where Pressure Sensitive Adhesives (PSA) are involved, Silicones are commonly used as Release Coatings (RC) to protect an organic PSA during all stages of manufacture, transport, storage and end-use. However, Silicones are not limited to this role and their release properties can be significantly altered to lead to varying adhesive performances. With all the advantages and properties of both inorganic and organic behavior, Silicone PSAs and Soft Skin Adhesives (SSAs) are becoming a very important class of adhesives dedicated to industrial, electronic or healthcare applications that have tend to be highly specialized compared to the wide range of applications in which more common adhesives are used. The strenght and diversity of Silicone chemistry offers a range of materials and properties to help meet the general and specific requirements of all of those applications.

The purpose of this paper is to provide an overview of Silicone PSAs, SSAs and RC technologies with particular emphasis on their unique chemistry, properties, processing and applications which explain the continuing and ever-increasing importance of Silicone materials in a wide range of industries and applications.