

Self Healing Polyurethane



In the summer of 2013, ITS News reported on a synthetic rubber that can repair itself. Now we have read that a type of polyurethane containing Carboxyl groups has demonstrated thermally assisted healing effects.

The polymer can be repaired up to 3 days after cutting and has a repeatable healing property. The tensile strength of the healed polyurethane is 90% when compared to the original uncut polyurethane. Carboxyl content plays an important part in the healing process. Polyurethane without any Carboxyl groups will not heal.

As well as forming the basis of many adhesives and coatings, polyurethanes are extensively used in every sector in which Itac markets its products from textiles to building construction, medical and packaging.

The potential for self healing polyurethane is virtually limitless.