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MICROSPHERE ADHESIVES – FOR REPOSITIONABLE AND LONG-TERM REMOVABLE APPLICATIONS

H.B. Fuller's Microsphere technology is a possible solution to the dual challenges of increased peel adhesion and limited repositionability in pressure sensitive adhesives (PSA).

As a fundamental property of their design, pressure sensitive adhesives (PSA) build adhesion over time. This behavior is independent of the format of the PSA, across all the common technologies like hotmelts, water-based dispersions and solvent solutions and across all the established base chemistries. The increase in peel adhesion may build up very fast or only after a longer application time. The difference between initial and final adhesion may be quite high or rather small – but it's always there, with of course many variables to be considered.

At the same time the repositionability of common PSA technologies is limited. Typically, the peel level after the second application is lower than the one after the first application, and the adhesion becomes lower with each new application. Contamination and mechanical disruption of the adhesive surface, especially in real-life applications, can play a significant part in determining the repositionability.

H.B. Fuller's Microsphere technology can be an answer to these two issues. The technology can be repositioned several times at nearly the same adhesion level as in the first application. Microsphere based products typically maintain a stable low peel level, leading to a reliable removability even after a long application time with no adhesive residue or damage to the substrate surface.

In our presentation we want to explain the technology behind our Microspheres and show practical application examples for this type of removable pressure sensitive adhesive.