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DISPERSION OR HOTMELT? NEW WATER-BASED SYSTEM ENABLES HOTMELT-LIKE GREENSTRENGTH

Dispersions and hotmelts are different. Their properties are different. In general, handling, filling and application of dispersions are easier, as time-consuming and more demanding melting processes are obviously not necessary. However, as the water must be removed to get film formation, setting times and strength build-up is significantly faster with hot melt adhesives. This is essential in many industrial processes where forces must be absorbed quickly to achieve handling strengths. On the other hand, the processing windows are correspondingly small, and open times are significantly shorter with hot melt adhesives than with dispersions. In general, dispersions have advantageous properties in terms of heat resistance, flexibility (e.g. also in cold and hot conditions) and resistance to migrating substances. As a result, dispersions are used in some applications and hotmelt adhesives in others. And in some processes, hybrid work is even carried out and both technologies are used in parallel.

Therefore, an aqueous polymer dispersion that can be filled, transported and formulated like a dispersion adhesive, that behaves like a hotmelt adhesive in terms of setting speed and strength build-up and that retains key properties of a dispersion (such as heat resistance and flexibility) after application would be advantageous.

Utopia? No, because Jowat and BASF have been working together for years to achieve this. This patented technology and the results of this collaboration are now being presented here for the first time. A dispersion has been developed that can be triggered in a special applicator in such a way that it has similar properties to a hot melt adhesive in application, as described above: The best of both worlds.