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INFLUENCE OF TACKIFIERS ON UV CURING OF HMPSA AND INVESTIGATION ON OXIDATION SPEED OF UNSATURATED ORGANIC COMPOUNDS

UV-curable acrylate-based hotmelt adhesives are used for demanding applications. Their special properties result from the fact that they can be cross-linked with UV radiation after coating, which increases the cohesion of the adhesive. Resins can be used to increase the tack and adhesive strength. However, the selection of resins is challenging because, on the one hand, compatibility with polar acrylates is a challenge and, on the other hand, the resins absorb UV radiation and thus reduce cross-linking.

However, crosslinking can also take place in other ways, such as oxidative crosslinking. The reaction rates in oxidative crosslinking depend on the raw materials, but also on the use of catalysts. Oxidation reactions can be tracked by monitoring the oxygen content. This can be used not only for the cross-linking reactions, but for all processes in which oxygen is involved.