

## LIQUID RUBBERS FOR ADHESIVES & SEALANTS APPLICATIONS

### ABSTRACT:

Kuraray Liquid Rubber is a synthetic rubber based on isoprene, butadiene, and styrene at the polymer backbone and partially functionalized at the side chains to improve the adhesion to polar materials. They provide a safe method to join firmly metal surfaces while exhibit flexibility to withstand temperature changes or vibrations, for example, in automotive or construction applications. They show molecular weights ranging from 5,000 to 50,000 g/mol with narrow molecular weight distributions and can be cured with technical solid rubber by different systems, which brings unique properties to the formulations. For example, they can be used as reactive plasticizer that improves the processability and reduces the

migration, keeping the mechanical properties, in comparison to the typical plasticizers.

In the automotive industry, the production of innovative solutions to reach the future mobility and transportation trends is continuously increasing: emissions & noise reduction, performance & safety improvement, light-weighting, interior air quality, and greater comfort. We will present some guidelines of how the Liquid Rubbers can help to reach some of the challenges of this market, as well as, the advantages & disadvantages of the crosslinking of rubber-based compositions by each system.