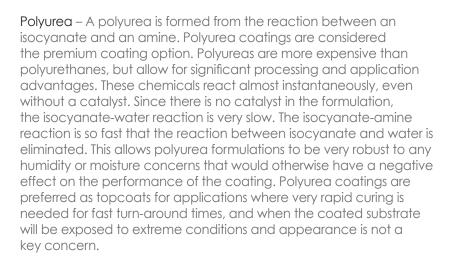


Fast-set spray systems typically fall into one of three categories: Polyurethane, Polyurea and Hybrid. Each chemistry has its advantages and disadvantages based on the application. Let's understand the basics of each:

Polyurethane – A polyurethane is formed from the reaction of an isocyanate and a polyol. Polyurethane coatings are considered the economy option. While polyurethane formulations allow for a wide range of hardnesses and physical properties, they are very sensitive to a reaction between the isocyanate and water (typically in the form of humidity or substrate surface moisture). These chemicals react very slowly unless a catalyst is added. The catalyst promotes the undesired reaction between the isocyanate and water, as well as the desired reaction between the isocyanate and polyol. For this reason, polyurethane coatings are very sensitive to humidity and moisture that can adversely affect the performance of the coating. We find that all types of polyurethane coatings work well in general industrial metal, heavy equipment and plastic primer, topcoat and clear-coat applications.



Hybrid – Hybrid coatings are a blend of polyurethanes and polyureas. The reaction is between and isocyanate and a blend of polyols and amines. The amine content allows for a lower level of moisture sensitivity, and the polyol content allows for a more favorable price point. Hybrids are an excellent choice for the widest range of applications, as they provide an excellent balance of performance, moisture insensitivity, and price. The most common OEM uses are corrosion control and waterproofing applications.

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