



Prepolymer

MPB-031

Hard Film Prepolymer for Adhesives and Coatings

Introducing MPB-031, a versatile polyurethane prepolymer engineered for specialty applications. Developed by Northstar Polymers, this polyether-based MDI prepolymer offers formulators a wide range of custom urethane systems—including adhesives, coatings, sealants, and elastomers. When this prepolymer is used in adhesive and sealant compositions, it helps to make harder and stronger film after being cured with moisture. A moisture-cured film of MPB-031 is stiff but flexible, with the hardness approximately 80 A to 90 A Durometer.

As a part of elastomer composition, when cured with 1,4-Butanediol, it forms a robust polyurethane elastomer with a Durometer hardness of 65D, delivering the strength and durability required in various applications. This prepolymer is extended with short and medium molecular weight linear polyols, enabling the formulation of tough yet flexible films and molded parts.

At MDI functionality of 2.15, MPB-031 allows formulators to create fast-curing systems without sacrificing mechanical performance. Whether you're developing next-generation industrial adhesives or rugged elastomer components, MPB-031 offers a commercially compelling blend of versatility, reactivity, and mechanical strength.

Typical Physical Properties

Specific Gravity:	1.133
Viscosity 72 °F (cps):	8,000
% NCO:	13.40
Amine Equivalents:	314
Appearance at 77 °F:	Pale Yellow Liquid
Storage Temperature:	72 °F to 86 °F

Health and Safety Information

We prepare Safety Data Sheets and Product Labels that provide health and safety information intended to aid in the safe use of this prepolymer. Before using or handling this product each person must read and become familiar

Notice: All of the statements, recommendations, suggestions, and data concerning the subject material are based on our laboratory results, and although we believe the same to be reliable, we expressly do not represent, warrant, or guarantee the accuracy, completeness, or reliability of same, or the material or the results to be obtained from the use thereof, neither do we warrant that any such use, either alone or in combination with other materials, shall be free of the rightful claim of any third party by way of INFRINGEMENT or the like, and NORTHSTAR POLYMERS DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY and FITNESS FOR A PARTICULAR PURPOSE. Revised: 7/30/25