POLYCOAT PRODUCTS
DIVISION OF AMERICAN POLYMERS CORPORATION

MATERIAL DATA SHEET

Polycoat-Polycast® 31181

Modified Monomeric Diphenylmethane Diisocyanate (MDI) Prepolymer

Product Description:

Polycoat-Polycast® 31181 is a modified 4,4' diphenylmethane diisocyanate (MDI) prepolymer used in the formulations for semiflexible urethane foams, microcellular, integral skin and elastomer applications. This versatile prepolymer may be paired with a variety of extenders as well as additives and colorants to achieve the final product result. As with all polyurethane products, application and field testing are necessary to determine suitability of the selected product or product combination for each specific application.

Typical Properties of Polycoat-Polycast® 31181	
Functionality, f 2.0	Equivalent Weight 183
NCO, % 22.0 – 23.2	Viscosity, mPa·s @ 25°C 650
Specific Gravity @ 25°C 1.21	Flash Point, PMCC 200°C
Appearance @ 25°C Light yellow liquid	Freezing Temperature 59°F (15°C)

Storage and Handling:

Containers should be kept tightly closed to prevent moisture contamination. Do not reseal if contamination is suspected. Use of a dry nitrogen blanket for partial drums is recommended. Storage temperatures for **Polycoat-Polycast® 31181** should be maintained between 68° and 95°F (20° and 35°C). For best results, this product should not be allowed to freeze, although it may be re-heated in a well ventilated oven for a period of time to re-liquify solid particles. To avoid product degradation, product temperature during re-heating should not exceed 140°F (60°C).
Do not breathe aerosol or vapors. Exposure to vapors of heated MDI can be dangerous. To heat product properly, use well ventilated convection ovens or other methods that distribute heat evenly. Avoid using drum heaters or other heat sources that may cause excessive local heating.

Health and Safety Information:
Appropriate literature has been assembled which provides information concerning the health and safety precautions that must be observed when handling any of the products listed above. Before working with these products, it is your responsibility to read and become familiar with the available information on its hazards, proper use and handling. This is extremely important and cannot be overemphasized. Information is available in several forms, e.g. material safety data sheets and product labels. To obtain this information, contact your **Polycoat Products** representative.

Please read all information in the general guidelines, product data sheets, guide specifications and material safety data sheets (MSDS) before applying material. Published technical data and instructions are subject to change without notice. Contact your local Polycoat Products representative or visit our website for current technical data and instructions.

DISCLAIMER

All guidelines, recommendations, statements, and technical data contained herein are based on information and tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. It is the user's responsibility to satisfy himself, by his own information and test, to determine suitability of the product for his own intended use, application and job situation and user assumes all risk and liability resulting from his use of the product. We do not suggest or guarantee that any hazards listed herein are the only ones which may exist. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements, whether in writing or oral, other than those contained herein shall not be binding upon the manufacturer, unless in writing and signed by a corporate officer of the manufacturer. Technical and application information is provided for the purpose of establishing a general profile of the material and proper application procedures. Test performance results were obtained in a controlled environment and Polycoat Products makes no claim that these tests or any other tests accurately represent all environments.

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