

POLYMERIC MDI SERIES

01

PRODUCT CHARACTERISTICS

Polymeric Methylene Diphenyl Diisocyanate (MDI) is used in the manufacture of various products, including rigid foam, semi-rigid foam and CASE. Polymeric MDI is classified into a variety of grades according to viscosity, among which users can choose the most suitable for their purposes. The characteristics of each of the major products are as follows:

1. COSMONATE M-80, M-100

Polymeric MDI having low viscosity and low functionality, this product features outstanding compatibility with PPG, along with excellent flowability and moldability.

2. COSMONATE M-200

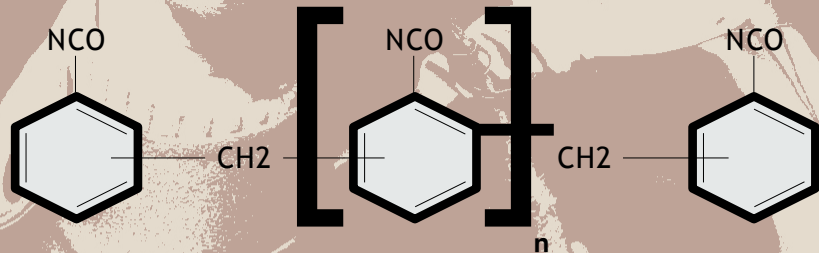
The most widely used product among the Polymeric MDI, it is commonly used for various manufacturing purposes, such as the production of rigid polyurethane foams and semi-rigid polyurethane foams.

3. COSMONATE SR-500

A high-viscosity polymeric MDI with high functionality, it is suitable for the production of Rigid PIR foams, due to its excellent flame retardancy and high compressive strength.

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CHEMICAL STRUCTURE



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SPECIFICATIONS

PRODUCT	M-80	M-100	M-100S	M-200	SR-180C	SR-500
Appearance	Dark Brown Liquid	Dark Brown Liquid	Dark Brown Liquid	Dark Brown Liquid	Dark Brown Liquid	Dark Brown Liquid
NCO Content(Wt%)	30.0~32.0	30.0~32.0	30.0~32.0	30.0~32.0	30.0~32.0	30.0~32.0
Viscosity(cps/25°C)	45~115	100~180	150~220	150~220	150~220	400~550
SP.GR(25°C)	1.23~1.25	1.23~1.25	1.23~1.25	1.23~1.25	1.23~1.25	1.23~1.25
Acid(Wt%)	Max. 0.1	Max. 0.1	Max. 0.1	Max. 0.1	Max. 0.1	Max. 0.1
H.C(Wt%)	Max. 0.3	Max. 0.3	Max. 0.3	Max. 0.3	Max. 0.3	Max. 0.3

FIGURE 1. Variations of Viscosity

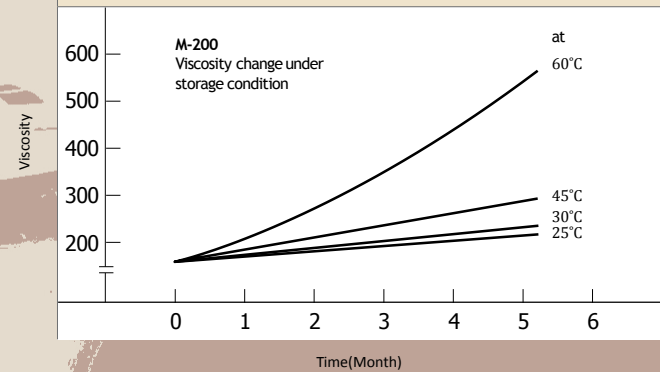
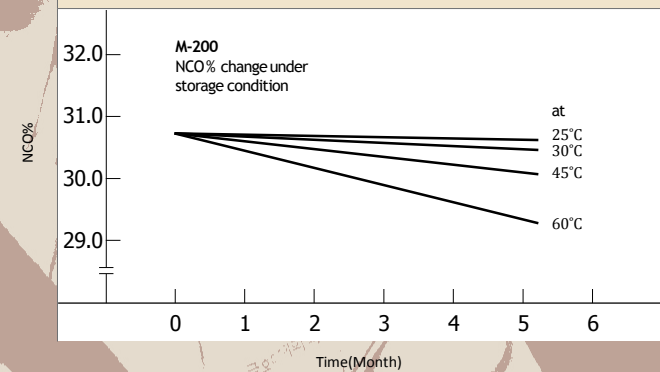


FIGURE 2. Variations of NCO%



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APPLICATIONS

Insulations for refrigerators and container transport, Insulation panels for construction, LNG carriers, Pre-insulated pipes, Board foam, Wood imitation, Spray insulations, Auto Instrumental Panel, Auto headliner and adhesives



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HANDLING AND STORAGE

Contact with water must be avoided during use and storage, as these products generate insoluble urea on contact with water. Packing containers must be charged with inert gas such as nitrogen and air tightly sealed, and stored at 15~35°C. Careful attention must be paid to storage times, as both physical and chemical properties deteriorate with time. Figures 1 and 2 at front page indicate the expected variability of NCO content and viscosity over time at different temperature ranges.

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SAFETY AND HEALTH

May cause inflammation of skin or irritation if contacted with skin or inhaled. Wear protective gear, including goggles, mask and gloves when handling this product. In case of accidental exposure, take the following emergency measures and seek appropriate medical attention:

- 1) In case of skin contact: Carefully wash entire area with soapy water, or take a shower if the exposed area is large, and seek medical attention. Rinse with large volumes of clean water for at least 15 minutes, regardless of level of exposure, and seek immediate medical attention. Move to a well-ventilated area, and seek medical attention. If breathing difficulties develop, provide artificial respiration or oxygen.
- 2) In case of eye contact:
- 3) In case of inhalation:

* Maximum permissible concentration in the air: 0.02 ppm.

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PRODUCT PACKAGING

250 kg/drum 15~20 ton/tank lorry