



# HDBM 100005N

## Polyethylene Compound

### Product Description

HDBM 100005N is a high density polyethylene, specially developed for large parts blow molding. This grade, which is produced by 1-hexene as a co-monomer, offers high stiffness, good process-ability, excellent parison melt strength and good ESCR. HDBM 100005N has been manufactured under Basell license.

|             |  |
|-------------|--|
| Item Code   | HDBM 100005N   |
| Grade       | High Desity Polyethylene                                       |
| Color       | NATURAL  |
| Application | High Volume Products-Jerry Cans-Open Top Drums (Up to 110 lit) |

### Typical Property Values

| PROPERTIES                           | TYPICAL VALUES | UNITS             | TEST METHODS |
|--------------------------------------|----------------|-------------------|--------------|
| POLYMER PROPERTIES                   |                |                   |              |
| Melt Flow Rate                       |                |                   |              |
| @ 190°C & 2.16 kg load               | 0.075 ± 0.003  | g/10 min          | ISO 1133     |
| @ 190°C & 21.6 kg load               | 10 ± 1         | g/10 min          | ISO 1133     |
| Masterbatch Content                  | 5 ± 1.2        | %                 | ISO 6964     |
| Density @ 23°C                       | 0.955 ± 0.005  | g/cm <sup>3</sup> | ISO 1183     |
| MECHANICAL PROPERTIES                |                |                   |              |
| Modulus Of Elasticity                | 1000           | MPa               | ISO 527-1;2  |
| ESCR                                 | 110            | h                 | ASTM D 1693  |
| Flexural Creep Moduls                | 1000           | MPa               | ASTM D 790   |
| Tensile Stress @ Yield               | 27             | MPa               | ISO 527-1;2  |
| Tensile Stress @ Break               | 43             | MPa               | ISO 527-1;2  |
| Izod Notched Impact Strength @ 23°C  | 22             | kJ/m <sup>2</sup> | ISO 180      |
| THERMAL PROPERTIES                   |                |                   |              |
| Processing Temp.                     | 180-220        | °C                |              |
| Vicat Softening Temperature ( 10 N ) | 128            | °C                | ISO 306      |

### PACKING

This product is packed in 25 Kg PE bags.

\* The values giyen are typical values measured on the product. These values should not be considered as specification.

\*\* Properties were measured on film extruded at a blow up ratio 2:1 with a melt temperature of 225 °C.



## Food Contact

The material is manufactured to the highest standards but, special requirements apply to certain applications, such as food contact end-use. For specific information on regulatory compliance, please contact DEC below or our local representative in your area.

## Safety

The resin is manufactured to the highest standards, but special requirements apply to certain applications such as food end-use contact and direct medical use. Specific information on regulatory compliance can be requested via customer. Molten polymer may be degraded if it is exposed to air during any of the processing and off-line operations. The products of degradation may have an unpleasant odor. In higher concentrations they may cause irritation of the mucus membranes. Fabrication areas should be ventilated to carry away fumes or vapors. Legislation on the control of emissions and pollution prevention should be observed. Workers should be protected from the possibility of skin or eye contact with molten polymer.

The resin will burn when supplied with excess heat and oxygen. It should be handled and stored away from contact with direct flames and/or ignition sources. While burning, the resin contributes high heat and may generate a dense black smoke. Recycled resins may have previously been used as packaging for, or may have otherwise been in contact with, hazardous goods. Converters are responsible for taking all necessary precautions to ensure that recycled resins are safe for continued use.

The detailed information about safety, handling, individual protection and waste disposal is provided in the relevant Safety Data Sheet. Additional specific information can be requested via customer.

## Storage

The material is packed in 25 kg bags or in bulk containers protecting it from contamination. Storage time of material longer than 6 months may have a negative influence on the quality of the final product. It is generally recommended to convert all materials latest within 6 months from delivery date. The material is subjected to degradation by ultra-violet radiation or by high storage temperatures. Therefore the material must be protected from direct sunlight, temperatures above 40°C and high atmospheric humidity during storage. Further unfavorable storage conditions are large fluctuations in ambient temperature and high atmospheric humidity. These conditions may lead to moisture condensing inside the packaging. Under these circumstances, it is recommended to dry the material before use. DEC will not give any warranty to unfavorable storage conditions which may lead to quality deterioration such as color change, bad smell and inferior product performance.

## Disclaimer

"The information and data contained in this publication is submitted without prejudice, and is based on our current knowledge, experience and on a limited number of tests". "In view of the many factors that may affect processing and application, these data do not relieve the receiver of this information from the responsibility of carrying out their own tests and experiments; neither do they imply any legally binding assurance of certain properties nor of suitability for a specific purpose of the products made with or on the basis of the information in this publication".



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### DEC CHEM KİM. MAD. MÜH. DAN. SAN. VE DİŞ TİC. A.Ş

Zeki Ayan Mah. 82027 Sk. No:5/1-2, 33220, Toroslar, Mersin, Türkiye  
+90 850 242 1661 dec-chem.com

### DEC GROUP ENTERPRISE CORP.

408 West Mansion Condominium 3 Zamboanga St Quenzon City, 2.District, NCR,1104,Metro Manila, Philippines  
+63 917 597 3689 dec.com.tr

### DEC GROUP INTERNATIONAL CORP.

550 Freman Street Suite 1 Nj 070, Lyndhurst, New Jersey, United States  
+1 800 967 3461 dec.com.tr

### DEC GROUP INTERNATIONAL CORP.

+251 71 242 1661 dec.com.tr

### DEC INTERNATIONAL GmbH

Overath, Germany  
+49 163 8070183 dec.com.tr