



## Product Description

HDE 004502B is high molecular weight high density polyethylene copolymers, developed as general purpose resin for use in pressure and non-pressure pipes. Suitability for use in any application should be determined performance testing.

Item Code	HDE 004502B
Grade	High Density Polyethylene
Color	Black
Application	Pipe Extrusion

## Typical Property Values

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
POLYMER PROPERTIES			
Melt Flow Rate			
@ 190°C & 5 kg load	0.45 ± 0.1	g/10 min	ISO 1133
Masterbatch Content	-	%	ISO 6964
Density @ 23°C	0.958 ± 0.07	g/cm <sup>3</sup>	ASTM D1505
Carbon Black Content	2.5 ± 0.5	%	ISO 6964
MECHANICAL PROPERTIES			
Tensile Strength At Yield	22	MPa	ISO 527
Tensile Modulus	800	MPa	ISO 527
Tensile Elongation At Break	>800	%	ISO 527
ESCR	>50	h@4.0MPa	ISO CD 16770
Hydrostatic Strength Test @ 80°C	>1000	h	ISO 1167
Flexural Creep Modulus	950	MPa	DIN 19537-2
THERMAL PROPERTIES			
Oxidation Induction Time, OIT (210°C)	>20	min	EN 728

## PACKING

This product is packed in 25 Kg PE bags.

\* The values given 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

Workers should be protected from the possibility of skin or eye contact with molten polymer. As minimum precaution, safety glasses and heat resistance gloves are suggested to prevent mechanical or thermal injury to eyes and hands. Molten polymer exceeding processing condition requirements may degrade and release, fumes, vapors and unpleasant odor. In higher concentrations they may cause irritation of the mucus membranes. Fabrication areas should be ventilated to carry away fumes and vapors. Legislation on the control of emissions and pollution prevention must be observed. If the principles of sound manufacturing practice are adhered to and the place of work is well ventilated, no health hazards are involved in processing the material. The material may burn when supplied with excess heat and oxygen. It should be handled and stored away from contact with direct flames and/or ignition sources. In burning the material generates considerable heat and may release a dense black smoke. Fires should be extinguished by heavy foams or dry powder. For further information about safety in handling and processing please refer to the Material Safety Data Sheet (MSDS).

## 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".



# HDE 004502B

## Polyethylene Compound



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